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Amplifiers

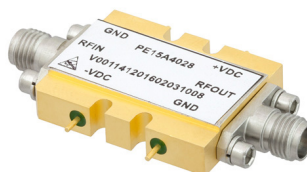


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All amplifier models can be viewed online at www.pasternack.com with real-time pricing, inventory, and comprehensive datasheets that include typical performance graphs and detailed CAD drawings. Applications engineers are standing by to answer any of your technical questions and can assist with selecting the right product for your specific application.

Amplifiers	2
Broadband Amplifiers	2
USB Controlled Broadband Amplifiers.....	8
Bench-Top Amplifiers.....	8
Low Noise Amplifiers	9
Input Protected Low Noise Amplifiers	13
Temperature Compensated Low Noise Amplifiers	15
Limiting Amplifiers	16
Gain Block Amplifiers.....	16
DC Coupled Amplifiers.....	17
Log Amplifiers.....	18
Power Amplifiers (<4W).....	18
High Power Amplifiers (>4W).....	23
GaN High Power Amplifiers	26
Bi-Directional Amplifiers	28
Variable Gain Amplifiers.....	28
High Rel Amplifiers.....	29
Amplifier Accessories	43
Waveguide.....	44
Power Amplifiers.....	44
Low Noise Amplifiers	44



Amplifiers

Broadband Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3308 	Broadband, Low Noise	0.01 MHz - 3	16	1.5	4	12	0.015		26	15 / 47	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A3311 	Broadband, Low Noise	0.1 MHz - 10	33	6.5	5	13	0.02		26	12 / 110	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A3310 	Broadband, Low Noise	0.3 MHz - 6.5	39	4.5	4	17	0.05		29	12 / 120	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A3309 	Broadband, Low Noise	1 MHz - 3	21	1.5	4	22	0.16		35	15 / 110	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A4032 	Broadband, High Rel	10 MHz - 6	24	0.75	5	29.5	0.9		42	15 / 740	2.305 x 2.6 x 0.54	SMA	EAR99
PE15A3269 	Broadband, Low Noise	10 MHz - 6	34	1	3	14.5	0.03		25.5	12 / 130	1.7 x 0.95 x 0.375	SMA	EAR99
PE15A4029 	Broadband, High Rel	10 MHz - 20	13	0.75	3	23	0.2	25	30	15 / 225	0.86 x 0.7 x 0.29	SMA	EAR99
PE15A3272 	Broadband, Low Noise, High Rel	10 MHz - 20	15	0.5	3	22	0.16	24	30	12 / 195	0.86 x 0.7 x 0.29	SMA	EAR99
PE15A3254 	Broadband, Low Noise, High Rel	30 MHz - 20	15	2.5	3	20	0.1		29	15 / 180	1.08 x 0.36 x 0.18	SMA	EAR99
PE15A3312 	Broadband, Low Noise, High Rel	30 MHz - 26.5	15	2	5.5	16	0.04			15 / 230	1.08 x 0.71 x 0.29	SMA	EAR99
PE15A3023 	Broadband	30 MHz - 40	25	2.5	6	20	0.1			11 / 400	2 x 1.3 x 0.6	2.92mm	EAR99
PE15A3007 	Broadband	100 MHz - 12	18	1	3	25	0.315	28	33	12 / 300	1.2 x 1 x 0.4	SMA	EAR99
PE15A3255 	Broadband, Low Noise	100 MHz - 18	14	1.5	3	16	0.04	18	28	12 / 80	1.2 x 1 x 0.4	SMA	EAR99
PE15A3256 	Broadband, Low Noise	100 MHz - 18	28	2.5	3	16	0.04	18	28	12 / 160	1.5 x 1 x 0.4	SMA	EAR99
PE15A3267 	Broadband, Low Noise, High Rel	100 MHz - 26.5	15	2	5	15	0.03		23	15 / 200	0.9 x 1.05 x 0.38	SMA	EAR99

Broadband Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3004 	Broadband	110 MHz - 6	11	1.25	6.5	27	0.5	30	38	12 / 300	1.55 x 1.37 x 0.55	SMA	EAR99
PE15A3001 	Broadband	110 MHz - 10	10	1.5	6.5	27	0.5	30	38	12 / 300	1.55 x 1.37 x 0.55	SMA	EAR99
PE15A3021 	Broadband	300 MHz - 18	37	2		30.5	1.12		42	15 / 750	1.9 x 1.5 x 0.5	SMA	EAR99
PE15A4038 	Broadband, High Rel	500 MHz - 2	14	0.4	2.7	24	0.25		34	12 / 180	1.1 x 0.9 x 0.5	SMA	EAR99
PE15A3014 	Broadband, High Rel	500 MHz - 2	30	0.6	2.7	24	0.25		34	12 / 240	0.9 x 1.1 x 0.5	SMA	EAR99
PE15A3015 	Broadband, High Rel	500 MHz - 2	46	0.8	2.7	24	0.25		34	12 / 300	1.35 x 0.9 x 0.5	SMA	EAR99
PE15A4039 	Broadband, High Rel	500 MHz - 2.5	24	0.5	3.5	24	0.25			12 / 240	1.13 x 0.5 x 0.9	SMA	EAR99
PE15A4037 	Broadband	500 MHz - 6	24			33	2	33		28 / 600	2.4 x 2.1 x 0.5	SMA	EAR99
PE15A3005 	Broadband	500 MHz - 10	32	1	3	25	0.315		33	12 / 375	1.5 x 1 x 0.4	SMA	EAR99
PE15A3008 	Broadband	500 MHz - 18	27	2.5	3	25	0.315		35	12 / 330	1.5 x 1 x 0.4	SMA	EAR99
PE15A3263 	Broadband, High Rel	500 MHz - 18	33	1.5	4	15	0.03			12 / 220	1.093 x 1.33 x 0.382	SMA	EAR99
PE15A3253 	Broadband, Low Noise, High Rel	500 MHz - 20	14	1.75	3	14	0.025		29	15 / 75	1.08 x 0.36 x 0.18	SMA	EAR99
PE15A3264 	Broadband, High Rel	800 MHz - 5.5	20	0.5		25	0.315	28	34	12 / 750	1.093 x 1.33 x 0.382	SMA	EAR99
PE15A3262 	Broadband, High Rel	1 - 18	30	1.5		19	0.1	20		12 / 240	1.093 x 1.33 x 0.382	SMA	EAR99
PE15A3276 	Broadband, Low Noise, High Rel	1.8 - 4.2	26		1.2	15.5	0.035	17.5	26	12 / 105	1.086 x 0.85 x 0.34	SMA	EAR99

Broadband Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A4040 	Broadband, High Rel	2-6	13	0.4	5.4	23	0.2		33	12 / 180	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A4041 	Broadband, High Rel	2-6	22	0.6	5.4	27	0.5		37	12 / 420	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A4003 	Broadband, High Rel	2-6	32	1	5	33	2		42	15 / 1,700	1.93 x 2.36 x 0.67	SMA	EAR99
PE15A4005 	Broadband, High Rel	2-6	33	1	5	30	1		39	12 / 1,000	1.837 x 1.15 x 0.67	SMA	EAR99
PE15A4042 	Broadband, High Rel	2-6	36	1.5	6	34	2.51			15 / 2,200	3.87 x 3.64 x 0.67	SMA	EAR99
PE15A4043 	Broadband, High Rel	2-6	44	1	4.5	35	3.16		45	12 / 4,200	3.87 x 3.64 x 0.67	SMA	EAR99
PE15A3503 	Broadband, High Gain, High Rel	2-6	44	1	5	30	1		39	15 / 1,050	1.837 x 1.15 x 0.67	SMA	EAR99
PE15A3290 	Broadband, Low Noise, High Rel	2-8	14		2.5	13	0.02			12 / 120	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A3291 	Broadband, Low Noise, High Rel	2-8	30		2.5	13	0.02			12 / 150	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A3016 	Broadband, High Rel	2-8	33	1.5		29.4	0.87			8.5 / 941	2.15 x 1.55 x 0.36	SMA	EAR99
PE15A4051 	Broadband	2-18	12	1.5		16	0.04			12 / 65	1.2 x 0.85 x 0.375	SMA	EAR99
PE15A3301 	Broadband, Low Noise	2-18	22	2.5	3.2	13	0.02			12 / 100	1.08 x 0.75 x 0.35	SMA	EAR99
PE15A3257 	Broadband, Low Noise	2-18	26	2	3	14	0.025		24	12 / 150	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A3258 	Broadband, Low Noise	2-18	33	1	3				25	12 / 180	1.5 x 1 x 0.4	SMA	EAR99
PE15A3265 	Broadband, High Rel	2-18	33	1.5	3.5	13	0.02			12 / 180	1.093 x 1.33 x 0.382	SMA	EAR99

Broadband Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3022 	Broadband	2 - 18	37	1.5		30.5	1.12		42	15 / 800	1.9 x 1.5 x 0.5	SMA	EAR99
PE15A3271 	Broadband, Low Noise, High Rel	2 - 20	13	0.5	2	16	0.04	21	26	12 /	0.75 x 0.7 x 0.29	SMA	EAR99
PE15A3270 	Broadband, Low Noise, High Rel	2 - 20	15		2.5	13	0.02	15.5	23	12 / 78	0.64 x 0.59 x 0.29	SMA	EAR99
PE15A4027 	Broadband, High Rel	2 - 20	15	0.75		26	0.4		30	12 / 310	1.5 x 0.7 x 0.29	SMA	EAR99
PE15A4030 	Broadband, High Rel	2 - 20	31	0.75	3	26	0.4		30	15 / 400	0.86 x 0.7 x 0.29	SMA	EAR99
PE15A3009 	Broadband	2 - 24	12	0.75	4	26	0.4	28	35	12 / 260	1.2 x 1 x 0.4	2.92mm	EAR99
PE15A3038 	Broadband, High Rel	2 - 35	12	0.4	4	18	0.06	18.5	26	16 /	1.086 x 0.195 x 0.85	2.92mm	3A001. B.4.C
PE15A4046 	Broadband, High Rel	3.1 - 3.5	30	0.7	4.5	30	1			12 / 900	2.17 x 0.86 x 0.32	SMA	EAR99
PE15A4044 	Broadband, High Rel	6 - 12	16	0.6	5	27	0.5		37	12 / 400	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A3292 	Broadband, Low Noise, High Rel	6 - 12	17		2.5	7	5			12 / 100	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A4045 	Broadband, High Rel	6 - 12	28	0.8	5	27	0.5			12 / 500	1.333 x 1.093 x 0.382	SMA	EAR99
PE15A3293 	Broadband, Low Noise, High Rel	6 - 12	30		2.5					12 / 200	1.583 x 1.093 x 0.382	SMA	EAR99
PE15A4001 	Broadband, High Rel	6 - 12	37	1.5	6	33	2		42	15 / 2,500	2.36 x 1.93 x 0.67	SMA	EAR99
PE15A4004 	Broadband, High Rel	6 - 12	38	1	5	30	1		39	15 / 1,300	2.36 x 1.55 x 0.5	SMA	EAR99
PE15A3506 	Broadband, High Gain, High Rel	6 - 12	47	1.5	6	33	2		42	15 / 2,500	2.36 x 1.93 x 0.67	SMA	EAR99

Broadband Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3505 	Broadband, High Gain, High Rel	6 - 12	48	1	5	30	1		39	15 / 1,350	2.36 x 1.55 x 0.65	SMA	EAR99
PE15A3295 	Broadband, Low Noise, High Rel	6 - 18	14		3	13	0.02			12 / 100	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A3018 	Broadband, High Rel	6 - 18	30	1	3.5	28	0.63			12 / 1,300	2.1 x 1.15 x 0.42	SMA	EAR99
PE15A3019 	Broadband, High Rel	6 - 18	30	1.5		30	1			18 / 1,700	2.65 x 2.5 x 0.45	SMA	EAR99
PE15A3294 	Broadband, Low Noise, High Rel	6 - 18	30		2.5	10	0.01			12 / 200	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A3302 	Broadband, Low Noise	6 - 18	32	1.5	2.3	14	0.025			12 / 150	1.08 x 0.75 x 0.35	SMA	EAR99
PE15A3017 	Broadband, High Rel	6 - 18	36	2		27	0.5			15 / 800	1.093 x 2.083 x 0.382	SMA	EAR99
PE15A3259 	Broadband, Low Noise	6 - 18	38	2	2.5	22	0.16		30	12 / 280	1.5 x 1 x 0.4	SMA	EAR99
PE15A3020 	Broadband, High Rel	6 - 18	42	2	5.4	27	0.5		37	12 / 900	2.083 x 1.093 x 0.5	SMA	EAR99
PE15A3273 	Broadband, Low Noise, High Rel	7 - 17	22		2.5	14	0.025			12 / 93	0.64 x 0.59 x 0.29	SMA	EAR99
PE15A3296 	Broadband, Low Noise, High Rel	12 - 18	18		3.5	13	0.02			12 / 100	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A4002 	Broadband, High Rel	12 - 18	33	2	6	30	1		39	15 / 2,000	1.55 x 2.36 x 0.5	SMA	EAR99
PE15A3507 	Broadband, High Gain, High Rel	12 - 18	43	2	6	30	1		39	15 / 2,000	2.36 x 1.55 x 0.5	SMA	EAR99
PE15A3024 	Broadband	12.4 - 26.5	35	2	3	24.5	0.3			12 / 500	1.2 x 1.2 x 0.6	SMA	EAR99
PE15A4028 	Broadband, High Rel	17 - 24	22			24	0.25			12 / 250	1.086 x 0.85 x 0.36	2.92mm	EAR99

Broadband Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3274 	Broadband, Low Noise, High Rel	17 - 27	19		2.75	13.5	0.02			12 / 96	0.64 x 0.59 x 0.29	2.92mm	EAR99
PE15A3303 	Broadband, Low Noise	18 - 26.5	32	2.5	2.3	11	0.01			12 / 250	0.53 x 0.7 x 0.3	SMA	EAR99
PE15A3260 	Broadband, Low Noise	18 - 26.5	40	2	2.5	13	0.02		22	12 / 150	1.5 x 1 x 0.4	2.92mm	EAR99
PE15A3268 	Broadband, Low Noise, High Rel	18 - 40	18	2	5.5	10	0.01			15 / 250	1 x 1.75 x 0.41	2.4mm	3A001. B.4.C
PE15A3025 	Broadband	18 - 40	30	2.5	6.5	20	0.1			12 / 350	1.2 x 1.2 x 0.6	2.92mm	EAR99
PE15A3304 	Broadband, Low Noise	18 - 40	32	2	4	12	0.015			12 / 200	0.64 x 0.7 x 0.3	2.92mm	EAR99
PE15A3305 	Broadband, Low Noise	18 - 40	44	4	4	11	0.01			12 / 250	1.27 x 1.48 x 0.35	2.92mm	EAR99
PE15A3261 	Broadband, Low Noise	26.5 - 40	22	1	3.5	13.5	0.02		22	12 / 125	1.5 x 1 x 0.4	2.92mm	EAR99
PE15A3266 	Broadband, Low Noise	26.5 - 40	30	2	2	11	0.01			12 / 150	1.2 x 1.2 x 0.6	2.92mm	EAR99
PE15A4022 	Broadband	26.5 - 40	30	2	6	20	0.1			12 / 350	1.2 x 1.2 x 0.6	2.92mm	EAR99
PE15A3306 	Broadband, Low Noise	26.5 - 40	35	2.5	2.4	10.5	0.01			12 / 150	0.53 x 0.7 x 0.3	2.92mm	EAR99
PE15A3307 	Broadband, Low Noise	26.5 - 40	52	3.5	3.3	12	0.015			12 / 375	0.75 x 0.7 x 0.3	2.92mm	EAR99
PE15A3275 	Broadband, Low Noise, High Rel	29 - 36	20		2.9	11	0.01			3 / 80	1.086 x 0.85 x 0.375	2.92mm	EAR99

USB Controlled Broadband Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	NF (dB)	P1dB (dBm)	Control	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3900 	USB, USB	50 MHz - 18	12	4.5	10	USB	2.25 x 1 x 0.33	SMA	EAR99
PE15A3901 	USB, USB	50 MHz - 40	12	5	10	USB	2.25 x 1 x 0.33	2.92mm	EAR99

Bench-Top Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	DC Power (Optional DC In) (Volts)	AC Power (Voltage/Cycle)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A3037 	Bench-Top, Broadband, High Rel	10 MHz - 15	12	0.3	4	28	16 / 360		4.23 x 1.7 x 1.68	SMA	EAR99
PE15A3500 	Bench-Top, High Gain, High Rel	1 - 20	60	3	5	10		115 / 60	4.92 x 4.92 x 2.1	SMA	EAR99
PE15A3512 	Bench-Top, High Gain, High Rel	1 - 20	60	3	5	10		100 /	4.92 x 4.92 x 2.1	SMA	EAR99
PE15A3513 	Bench-Top, High Gain, High Rel	1 - 20	60	3	5	10		220 /	4.92 x 4.92 x 2.1	SMA	EAR99
PE15A3514 	Bench-Top, High Gain, High Rel	1 - 40	40	2.5	5	10	12 /	100 /	4.92 x 4.92 x 2.26	2.92mm	EAR99
PE15A3515 	Bench-Top, High Gain, High Rel	1 - 40	40	2.5	5	10	12 /	220 /	4.92 x 4.92 x 2.1	2.92mm	EAR99
PE15A3595 	Bench-Top, High Gain, High Rel	1 - 40	40	2.5	5	22	12 /	120 / 60	4.92 x 4.92 x 2.1	2.92mm	EAR99
PE15A3508 	Bench-Top, High Gain, High Rel	20 - 40	30	2	5	10		100 / 60	4.92 x 4.92 x 2.26	2.92mm	EAR99
PE15A3509 	Bench-Top, High Gain, High Rel	20 - 40	30	2	5	10		220 /	4.92 x 4.92 x 2.26	2.92mm	EAR99
PE15A3510 	Bench-Top, High Gain, High Rel	20 - 40	60	3	5	10		100 /	4.92 x 4.92 x 2.26	2.92mm	EAR99
PE15A3511 	Bench-Top, High Gain, High Rel	20 - 40	60	3	5	10		220 /	4.92 x 4.92 x 2.26	2.92mm	EAR99

Low Noise Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1007 	Low Noise	0.009 MHz - 3	32	1.25	2.5	16	0.04	29	15 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1046 	Low Noise	0.01 MHz - 500 MHz	45	0.5	2.5	11	0.013	23	16 / 75	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1055 	Low Noise	0.01 MHz - 1.4	42	1	3	19	0.079	32	16 / 120		SMA	EAR99
PE15A1059 	Low Noise	0.01 MHz - 2	28	2	3.2	13	0.02	23	18 / 45	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1047 	Low Noise	0.03 MHz - 600 MHz	50	1.2	2.2	14	0.025	24	18 / 85	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1045 	Low Noise	1 MHz - 500 MHz	33.5	1.5	2	13	0.02	24	30 / 40	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1043 	Low Noise	10 MHz - 250 MHz	17	0.5	1.4	22	0.159	39	5.25 / 160	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1044 	Low Noise	10 MHz - 550 MHz	29.7	0.3	1.7	19	0.079	34	15 / 105	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1063 	Low Noise	10 MHz - 600 MHz	40.5	0.8	0.9	19	0.079	34	15 / 140	1.79 x 1.1 x 0.45	SMA	EAR99
PE15A1048 	Low Noise	10 MHz - 800 MHz	42	0.7	2	17	0.05	30	15 / 100	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1065 	Low Noise	10 MHz - 800 MHz	60	1.5	2.1	17	0.05	27	15 / 160	1.79 x 1.1 x 0.45	SMA	EAR99
PE15A1011 	Low Noise	10 MHz - 1	30	0.7	1	17	0.05		15 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1049 	Low Noise	10 MHz - 1	32		2	12	0.016	23	15 / 40	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1012 	High Gain	10 MHz - 1	40	1	0.8	17	0.05	31.5	15 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1013 	High Gain	10 MHz - 1	50	1.25	1	18	0.063	28	15 / 140	1.5 x 0.85 x 0.375	SMA	EAR99

Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1052 	Low Noise	10 MHz - 1	51	0.8	2.2	13	0.02	22	15 / 88	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1054 	Low Noise	10 MHz - 1.3	35	0.5	1.5	20	0.1	34	15 / 165	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1009 	Low Noise	10 MHz - 3	34	0.75	1.4	11	0.013	25	15 / 95	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1051 	Low Noise	20 MHz - 1	30	0.5	1.3	18	0.063	32	18 / 140	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1064 	Low Noise	20 MHz - 1	30.5	0.8	1.3	19	0.079	34	15 / 140	1.79 x 1.1 x 0.45	SMA	EAR99
PE15A1057 	Low Noise	20 MHz - 1.5	20	1.2	1	17	0.05	35	18 / 70	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1008 	Low Noise	20 MHz - 3	25	0.75	1.6	13.5	0.022	25	15 / 75	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1061 	Low Noise	20 MHz - 4	25	0.7	2	18	0.063	34	5.5 / 160	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1060 	Low Noise	40 MHz - 3	16	1.6	1.3	7	0.005	22	3.3 / 18	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1050 	Low Noise	50 MHz - 1	18	0.5	1	16	0.04	32	18 / 70	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1014 	Low Noise	50 MHz - 1	19			18	0.063	36	12 / 90	1.38 x 0.5 x 1.2	SMA	EAR99
PE15A1053 	Low Noise	50 MHz - 1.2	47	1	2.2	13	0.02	23	15 / 88	1.25 x 1.25 x 0.563	SMA	EAR99
PE15A1042 	Low Noise	50 MHz - 2	27	0.75	1.8	22	0.159	37	13.5 / 160	1.2 x 0.85 x 0.375	SMA	EAR99
PE15A1066 	Low Noise	100 MHz - 2	61.5	1	2.5	19	0.079	33	15 / 170	1.79 x 1.1 x 0.45	SMA	EAR99
PE15A1017 	Low Noise	500 MHz - 3	14.5	0.4	2	20	0.1	35	12 / 90	1.38 x 0.5 x 1.18	SMA	EAR99

Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1018 	Low Noise	500 MHz - 3	29	1	2.6	20	0.1	34	12 / 190	3.15 x 0.493 x 2.56	SMA	EAR99
PE15A1068 	Low Noise	500 MHz - 4	24	2.5	0.7	17	0.05	34	15 / 65	1 x 0.79 x 0.45	SMA	EAR99
PE15A1067 	Low Noise	700 MHz - 2.7	23	1	0.7	18	0.063	35	15 / 65		SMA	EAR99
PE15A1000 	Low Noise, High Rel	1 - 2	35	1	1.5	10	0.01		13 / 200	1.77 x 1 x 0.5	SMA	EAR99
PE15A1019 	High Gain	1 - 2	40	1	0.8	11	0.013	25	12 / 120	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1070 	Low Noise	1 - 4	20	1.2	0.8	20	0.1	41	15 / 120	1 x 0.79 x 0.45	SMA	EAR99
PE15A1031 	Low Noise, High Rel	1 - 12	16		1.75	17	0.05		6 / 60	1.14 x 1.9 x 0.56	SMA	EAR99
PE15A1023 	Low Noise, High Rel	1.2 - 1.4	25	0.75	1.5	10	0.01		13.2 / 150	2.32 x 2.32 x 0.71	SMA	EAR99
PE15A1024 	Low Noise, High Rel	1.2 - 1.4	35	0.75	1.5	17	0.05		13.2 / 180	2.32 x 2.32 x 0.71	SMA	EAR99
PE15A1005 	High Gain, High Rel	1.2 - 1.4	40	0.75	1.5	15	0.032		13.2 / 200	1.78 x 1.17 x 0.382	SMA	EAR99
PE15A1028 	Low Noise	1.2 - 1.6	40	0.5	0.8	12	0.016		15 / 100	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1039 	Integrated Band Pass Filter Low Noise	1.215 - 1.4	25	0.75	0.5	16	0.04		12 / 130	2.32 x 2.32 x 0.71	SMA	EAR99
PE15A1040 	Integrated Band Pass Filter Low Noise	1.215 - 1.4	35	0.75	0.5	16	0.04		12 / 130	2.32 x 2.32 x 0.71	SMA	EAR99
PE15A1034 	Low Phase Noise, High Rel	1.5 - 5	14		4.5	17	0.05	27	9 / 170	1.14 x 1.9 x 0.56	SMA	EAR99
PE15A1001 	Low Noise, High Rel	2 - 4	38	1	2	13	0.02		13 / 200	2.283 x 1.093 x 0.382	SMA	EAR99

Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1041 	Low Noise	2 - 4	40	1	0.7	14	0.025		15 / 100	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1010 	High Gain	2 - 6	40	1	0.9	14	0.025	25	15 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1030 	Low Phase Noise, High Rel	2 - 18	12.5		6.5	13	0.02		5 / 80	0.64 x 0.7 x 0.29	SMA	EAR99
PE15A1035 	Low Phase Noise, High Rel	3 - 8	11		6	14	0.025	25	7 / 250	1.14 x 1.9 x 0.56	SMA	EAR99
PE15A1006 	High Gain, High Rel	3.1 - 3.5	40	0.3	1.1	15	0.032		17 / 150	2.537 x 1.15 x 0.67	SMA	EAR99
PE15A1002 	Low Noise, High Rel	4 - 8	38	1	2	13	0.02		13 / 250	2.283 x 1.093 x 0.382	SMA	EAR99
PE15A9002 	Low Noise, High Rel	5 - 9	22.5		1.75	14.8	0.03	25	12 / 105	1.086 x 0.85 x 0.36	SMA	EAR99
PE15A1032 	Low Phase Noise, High Rel	6 - 12	11	1	4.5	20	0.1	34	7 / 200	1.14 x 1.9 x 0.56	SMA	EAR99
PE15A1072 	Low Noise	6 - 12	25	0.7	2.1	11	0.013	25	5.5 / 65	1 x 0.79 x 0.45	SMA	EAR99
PE15A1071 	Low Noise	6 - 18	26	2.5	1.9	11	0.013	25	5.5 / 65		SMA	EAR99
PE15A1033 	Low Phase Noise, High Rel	7 - 11	9		6	22	0.159	33	7 / 300	1.14 x 1.9 x 0.56	SMA	EAR99
PE15A1027 	Low Noise, High Rel	8 - 12	18	1	2.2	13	0.02		13 / 150	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A1026 	Low Noise, High Rel	8 - 12	28	1	2.2	13	0.02		13 / 200	1.333 x 1.093 x 0.382	SMA	EAR99
PE15A1003M 	Low Noise, High Rel	8 - 12	38	1	2.2	13	0.02		13 / 250	2.283 x 1.093 x 0.382	SMA	EAR99
PE15A1003 	Low Noise, High Rel	8 - 12	38	1	2.2				13 / 250	1.58 x 1.093 x 0.382	SMA	EAR99

Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1025 	Low Noise, High Rel	8 - 12	48	1	2.2				13 / 300	2.83 x 1.093 x 0.382	SMA	EAR99
PE15A1004 	Low Noise, High Rel	12 - 18	38	1	3	13	0.02		13 / 300	2.283 x 1.093 x 0.382	SMA	EAR99
PE15A3300 	Low Noise	26.5 - 40	43	2	2	12	0.016	20	15 / 110	1.5 x 1 x 0.4	2.92mm	EAR99
PE15A1076 	Waveguide Low Noise	26.5 - 40	46	2.5	3	21	0.126	25	15 / 420		WR28	EAR99
PE15A1077 	Waveguide Low Noise	27 - 40	35	3	3	10	0.01	20	15 / 110		WR28	EAR99

Input Protected Low Noise Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A63012 	Input Protected Low Noise	0.001 MHz - 1	40	1	1	15	0.032	27	15 / 80	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63013 	Input Protected Low Noise	0.001 MHz - 1	50	1.25	1	15	0.032	30	15 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63014 	Input Protected Low Noise	0.001 MHz - 1	60	1.5	1	16	0.04		15 / 130	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63000 	Input Protected Low Noise	10 MHz - 1	30	0.7	1	17	0.05	32	15 / 120	1.2 x 0.85 x 0.375	SMA	EAR99
PE15A63001 	Input Protected Low Noise	10 MHz - 1	40	1	1	17	0.05	31.5	15 / 110	1.2 x 0.85 x 0.375	SMA	EAR99
PE15A63018 	Input Protected Low Noise	10 MHz - 6	30	1	3.5	14.5	0.028	37	15 / 100	1.7 x 0.95 x 0.375	SMA	EAR99
PE15A63016 	Input Protected Low Noise	20 MHz - 3	25	0.75	1.7	13	0.02	23	15 / 75	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63002 	Input Protected Low Noise	30 MHz - 1.5	25	0.5	1.6	22	0.159	39	15 / 150	1.2 x 0.85 x 0.375	SMA	EAR99

Input Protected Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A63003 	Input Protected Low Noise	30 MHz - 1.5	29	0.5	1.6	23	0.2	39	15 / 160	1.2 x 0.85 x 0.375	SMA	EAR99
PE15A63017 	Input Protected Low Noise	30 MHz - 3	30	0.5	1.7	15	0.032	28	13 / 80	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63020 	Input Protected Low Noise	100 MHz - 18	33	1.5	3.5	21.5	0.141	30	15 / 280	1.5 x 1 x 0.4	SMA	EAR99
PE15A63015 	Input Protected Low Noise	100 MHz - 18	38	1.5	3	17.5	0.056	26	15 / 300	1.9 x 1 x 0.4	SMA	EAR99
PE15A63004 	Input Protected Low Noise	900 MHz - 1.2	30	1	1.2	10	0.01		12 / 100	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63005 	Input Protected Low Noise	900 MHz - 1.2	40	1	1.2	10	0.01		12 / 100	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A63006 	Input Protected Low Noise	1 - 1.4	30	1	1.2	10	0.01		12 / 110	1.5 x 0.85 x 0.375	SMA	EAR99
PE15A1075 	GaN Input Protected Low Noise	1 - 7	42	3.5	1.5	22	0.159	31	28 / 200		SMA	EAR99
PE15A1074 	GaN Input Protected Low Noise	1 - 23	29	1.5	3.5	20	0.1	32	28 / 250		SMA	EAR99
PE15A63007 	Input Protected Low Noise	2 - 2.6	30	0.35	0.85	12	0.016		15 / 110	1.7 x 0.95 x 0.375	SMA	EAR99
PE15A63019 	Input Protected Low Noise	2 - 6	40	1	1.2	14	0.025		15 / 90	1.7 x 0.95 x 0.375	SMA	EAR99
PE15A63008 	Input Protected Low Noise	2.6 - 3.1	30	1	1.2	10	0.01		12 / 120	1.7 x 0.95 x 0.375	SMA	EAR99
PE15A63009 	Input Protected Low Noise	2.6 - 3.1	40	1	1.2	10	0.01		12 / 120	1.7 x 0.95 x 0.4	SMA	EAR99
PE15A63010 	Input Protected Low Noise	3.1 - 3.5	28	0.5	0.8	8	0.006	20	15 / 45	1.2 x 1 x 0.4	SMA	EAR99
PE15A63011 	Input Protected Low Noise	3.1 - 3.5	35	1	0.85	13	0.02		12 / 100	1.7 x 0.95 x 0.4	SMA	EAR99

Input Protected Low Noise Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A1073 	GaN Input Protected Low Noise	5 - 13	44	2.5	1.8	22	0.159	31	28 / 160		SMA	EAR99
PE15A63021 	Input Protected Low Noise	26.5 - 40	35	2	2.5	11	0.013	20	15 / 110	1.5 x 1 x 0.4	SMA	EAR99

Temperature Compensated Low Noise Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	DC Current (mA)	ECCN
PE15A5101F 	Low Noise	500 MHz - 4	39	1.75	3	21	350	
PE15A5101 	Standard	500 MHz - 4	47	1.75	4	21	350	EAR99
PE15A5104F 	Standard	2 - 8	39	1.5	3.8	22	350	EAR99
PE15A5104 	Standard	2 - 8	40	1.5	4.5	22	350	EAR99
PE15A5106 	Standard	2 - 18	39	2.5	5.5	22	550	
PE15A5106F 	Low Noise	2 - 18	39	2.5	5.5	22	550	
PE15A5105 	Standard	4 - 12	40	1.75	3.5	22	350	EAR99
PE15A5105F 	Standard	4 - 12	40	1.75	4	22	350	EAR99
PE15A5107F 	Standard	6 - 18	43	2	4.7	22	400	EAR99
PE15A5107 	Standard	6 - 18	47	2	4.5	22	400	EAR99
PE15A5108F 	Low Noise	26.5 - 40	42	3	6.8	18	400	
PE15A5108 	Low Noise	26.5 - 40	45	3	7	18	400	

Limiting Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	Input Power	Psat (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A6002 	High Rel, Limiting	1 - 2	60	2.5	3	-40 to 10	19	13 / 250	1.602 x 0.66 x 0.38	SMA	EAR99
PE15A6015 	High Rel, Limiting	2 - 4	40		3	-20 to 10	19	15 / 200	1.358 x 0.66 x 0.38	SMA	EAR99
PE15A6007 	High Rel, Limiting	2 - 6	80	3	4	-61 to 10	15	13 / 550	1.602 x 0.66 x 0.38	SMA	EAR99
PE15A6008 	High Rel, Limiting	2 - 8	40	2	5	-20 to 15	19	13 / 300	1.6 x 1.15 x 0.42	SMA	EAR99
PE15A6012 	High Rel, Limiting	6 - 18	40	2	4	-20 to 15	19	13 / 300	1.85 x 1.15 x 0.42	SMA	EAR99

Gain Block Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE1514 	Gain Block	10 MHz - 3	12	10	5.5	10	0.01		15 / 40	2.18 x 1.18 x 0.49	SMA	EAR99
PE1528 	Gain Block	10 MHz - 3	15	2	3	11	0.01	12	18 / 40	1.38 x 0.5 x 1.18	SMA	EAR99
PE1513 	Gain Block	10 MHz - 3	20	14	2.7	13	0.02		15 / 50	2.18 x 1.18 x 0.49	SMA	EAR99
PE15A8001 	Gain Block	10 MHz - 6	15	0.35	4.5	12	0.015	26	12 / 50	1.2 x 0.85 x 0.375	SMA	EAR99
PE1517 	Gain Block	50 MHz - 1	22	0.75	3.5	12	0.015		12 / 150		SMA	EAR99
PE1518 	Gain Block	50 MHz - 2	22	1	3.5	12	0.015		12 / 150	2.36 x 2.36 x 0.75	SMA	EAR99
PE15A8000 	Gain Block	50 MHz - 4	26	1	5	22	0.16	35	12 / 120	2.08 x 1.08 x 0.5	SMA	EAR99
PE1516 	Gain Block	100 MHz - 3	18	18	6	16	0.04		15 / 120	2.18 x 1.18 x 0.49	SMA	EAR99

Gain Block Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE1525 	Gain Block	200 MHz - 2.5	22	1.25	6	15	0.03		15 / 120	2.18 x 1.18 x 0.49	SMA	EAR99
PE15A8004 	Gain Block, High Rel	500 MHz - 2	17	0.4	1.8			25	12 / 70	1.1 x 0.9 x 0.5	SMA	EAR99
PE15A8005 	Gain Block, High Rel	500 MHz - 2	50	1.8				25	12 / 180	1.083 x 1.093 x 0.382	SMA	EAR99
PE1519 	Gain Block	1 - 4	26	0.5	2.5	15	0.03		12 / 120	2.36 x 2.36 x 0.75	SMA	EAR99
PE1520 	Gain Block	2 - 4	25	0.5	2.5	15	0.03		12 / 120	2.36 x 2.36 x 0.75	SMA	EAR99
PE1521 	Gain Block	2 - 6	26	0.5	3	15	0.03		12 / 120	2.36 x 2.36 x 0.75	SMA	EAR99
PE1524 	Gain Block	2 - 18	23	1	3.5	13	0.02		12 / 150	1.083 x 1.093 x 0.382	SMA	EAR99
PE1522 	Gain Block	4 - 8	26	0.5	3	15	0.03		12 / 100	2.36 x 2.36 x 0.75	SMA	EAR99
PE15A8006 	Gain Block, High Rel	6 - 12	12	0.4	2.3	10	0.01	20	12 / 80	1.083 x 1.093 x 0.382	SMA	EAR99
PE15A8007 	Gain Block, High Rel	6 - 18	17	0.6	4.5	20	0.1		12 / 160	1.083 x 1.093 x 0.382	SMA	EAR99
PE1523 	Gain Block	6 - 18	22	1	4.5	13	0.02		12 / 150	1.45 x 0.39 x 0.78	SMA	EAR99

DC Coupled Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A86002 	Gain Block	DC - 17 MHz	30			14	0.025	25	/ 45	1.25 x 1.25 x 0.56	SMA	EAR99
PE15A86001 	Gain Block	DC - 1.5	14			11	0.01	25	/ 45	1.25 x 1.25 x 0.56	SMA	EAR99

DC Coupled Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A86000 	Gain Block	DC - 2	8		16	11	0.01	25	12 / 45	1.25 x 1.25 x 0.56	SMA	EAR99

Log Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Typical Recovery Time (ns)	Minimum TSS (dBm)	Log Linearity (± dB)	Log Range (dBm)	Rise Time (ns)	Log Slope (mV/dB)	Voltage (± Volts)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A2003 	Log, High Rel	500 MHz - 18	150	-65	1.75	-65 to 5	20	20	15	3 x 3.5 x 0.5	SMA	EAR99
PE15A2001 	Log, High Rel	2 - 6	60	-73	1.75	-70 to 5	15	40	12	3.75 x 1.5 x 0.5	SMA	EAR99
PE15A2004 	Log, High Rel	6 - 18	150	-40	1	-40 to 0	20	50	15	2.2 x 1.5 x 0.4	SMA	EAR99

Power Amplifiers (<4W)

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5030 	High Power, High Rel	1 MHz - 1	36	1.5		33	2	36	39	28 / 1,200	6 x 3 x 1.1	SMA	EAR99
PE15A5030F 	High Power w/ Fan, High Rel	1 MHz - 1	36	1.5		33	2	36	39	28 / 1,700	8.7 x 5.2 x 3.5	SMA	EAR99
PE15A5055 	High Power, High Rel	1.5 MHz - 30 MHz	47	2				47		28 / 5,000	5.9 x 3.5 x 0.98	SMA	EAR99
PE15A5109	Power	1.5 MHz - 30 MHz	53					53		28 / 15,000	7.5 x 5.9 x 1.2	SMA	EAR99
PE15A5056 	High Power, High Rel	1.5 MHz - 100 MHz	47	2				47		28 / 5,000	5.9 x 3.5 x 0.98	SMA	EAR99
PE15A5065 	High Power, High Rel	20 MHz - 520 MHz	51	2				50		28 / 9,000	5.91 x 3.54 x 0.98	SMA	EAR99
PE15A4072 	Power	20 MHz - 1	40	0.5	6				47	24 / 630	0 x 0 x 0	SMA	

Power Amplifiers (<4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5057 	High Power, High Rel	20 MHz - 1	49	2				49		28 / 11,000	0 x 0 x 0	SMA	
PE15A4017 	Power	20 MHz - 3	27	0.75		30	1		39	12 / 220	2.08 x 1.08 x 0.5	SMA	EAR99
PE15A5086 	High Power, High Rel	30 MHz - 2.7	35	1.5				39		30 / 1,400	3.25 x 2.42 x 0.54	SMA	
PE15A4018 	Power	30 MHz - 3	38	1		30	1		39	12 / 270	2.08 x 1.08 x 0.5	SMA	EAR99
PE15A4009 	Power, High Rel	50 MHz - 1	26	0.75	5	28	0.63		36	12 / 450	2.32 x 2.32 x 0.71	SMA	EAR99
PE15A4019 	Power	60 MHz - 6	36	1.5	5	29	0.8		39	15 / 530	1.5 x 1 x 0.4	SMA	EAR99
PE15A4052 	High Rel	100 MHz - 18	37	3	6	31	1.26			15 / 1,000	0 x 0 x 0	SMA	
PE15A4052F 	Power w/ Fan, High Rel	100 MHz - 18	37	3	6	31	1.26			15 / 2,160	0 x 0 x 0	SMA	
PE15A5084 	Power	200 MHz - 2.6	46	4		33	2	10	44	28 / 1,400	0 x 0 x 0	SMA	EAR99
PE15A5058 	High Power, High Rel	500 MHz - 1	50	2				50		28 / 10,000	5.91 x 3.54 x 0.98	SMA	EAR99
PE15A4053 	High Rel	500 MHz - 4	30	3	6	30	1			12 / 1,500	1.97 x 0.93 x 0.35	SMA	EAR99
PE15A4053F 	Power w/ Fan, High Rel	500 MHz - 4	30	3	6	30	1			12 / 2,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A5061 	High Power, High Rel	800 MHz - 1	53	2				53		28 / 25,000	7.9 x 5.9 x 0.98	SMA	EAR99
PE15A5077 	Power	800 MHz - 2	55	2.5		31	1.26	46	44	28 / 3,000	0 x 0 x 0	SMA	EAR99
PE15A5078 	Power w/ Fan	800 MHz - 2	60	5		33	2	46	44	28 / 3,000	0 x 0 x 0	SMA	EAR99

Power Amplifiers (<4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5034F 	Power w/ Fan	800 MHz - 4.2	31	2		30.8	1.2	31.8	41	13 / 1,000	4 x 2.9 x 2.1	SMA	
PE15A5034 	Power	800 MHz - 4.2	31	2		30.8	1.2	31.8	41	13 / 800	3 x 2.2 x 0.6	SMA	EAR99
PE15A5026 	Power	820 MHz - 960 MHz	15	0.5	2	30	1		46	12 / 500	1.2 x 1 x 0.4	SMA	EAR99
PE15A4025 	Power	1 - 2	35	0.75	1.5	33	2		42	12 / 600	2.75 x 1.45 x 0.5	SMA	EAR99
PE15A4016 	High Power	1 - 2	35	0.75	1.5	36	4		45	12 / 800	2.4 x 1.75 x 0.5	SMA	EAR99
PE15A5085 	Power	1 - 2.5	14	3				20	42	28 / 2,200	0 x 0 x 0	SMA	EAR99
PE15A5083 	Power	1 - 2.5	45	4		33	2	7	35.5	28 / 650	0 x 0 x 0	SMA	EAR99
PE15A5074 	Power	2 - 2.6	54	2.5		31	1.26	30	43	28 / 2,400	0 x 0 x 0	SMA	EAR99
PE15A4011 	High Power	2 - 4.4	32	0.5	10	36	4	37	37		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A4054 	High Rel	2 - 8	38	2.5	5.5	30	1			12 / 1,200	1.82 x 0.93 x 0.35	SMA	EAR99
PE15A4054F 	Power w/ Fan, High Rel	2 - 8	38	2.5	5.5	30	1			12 / 2,360	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4055 	High Rel	2 - 12	35	4		33	2		40	15 / 4,500	2.22 x 2 x 0.6	SMA	EAR99
PE15A4055F 	Power w/ Fan, High Rel	2 - 12	35	4		33	2		40	15 / 5,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4056 	High Rel	2 - 18	30	2.5		30	1		37	12 / 2,500	2.22 x 1.7 x 0.6	SMA	EAR99
PE15A4056F 	Power w/ Fan, High Rel	2 - 18	30	2.5		30	1		37	12 / 3,660	5.51 x 5.1 x 2.36	SMA	EAR99

Power Amplifiers (<4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A4057 	Power, High Rel	2 - 18	30	4		33	2		40	12 / 5,000	2.22 x 2 x 0.6	SMA	EAR99
PE15A4057F 	Power w/ Fan, High Rel	2 - 18	30	4		33	2		40	12 / 6,160	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4058 	High Rel	2 - 20	30	5.5		31	1.26		38	12 / 4,500	2.22 x 1.7 x 0.6	SMA	EAR99
PE15A4058F 	Power w/ Fan, High Rel	2 - 20	30	5.5		31	1.26		38	12 / 5,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A5002 	High Power, High Rel	3.1 - 3.5	45	1.5	4			40		15 / 5,000	3.64 x 3.87 x 0.67	SMA	EAR99
PE15A4012 	High Power	3.5 - 7	26	2	11	36	4	37	45	/ 1,600	1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5079 	Power w/ Fan	4.4 - 4.9	48	5		33	2	20	44	28 / 3,600	0 x 0 x 0	SMA	EAR99
PE15A5080 	Power w/ Fan	4.4 - 4.9	48	5		33	2	20	44	28 / 3,600	0 x 0 x 0	SMA	5A991.G
PE15A4060 	High Rel	6 - 12	47	2.5	6.5	30.5	1.12			12 / 1,500	1.97 x 0.93 x 0.35	SMA	EAR99
PE15A4060F 	Power w/ Fan, High Rel	6 - 12	47	2.5	6.5	30.5	1.12			12 / 2,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4061F 	Power w/ Fan, High Rel	6 - 18	30	2.5	7	27	0.5			12 / 1,380	2.52 x 5.1 x 2.36	SMA	EAR99
PE15A4061 	High Rel	6 - 18	30	2.5	7	27	0.5			12 / 800	1.53 x 0.93 x 0.35	SMA	EAR99
PE15A5048 	High Rel	6 - 18	35	3.5		33	2		40	12 / 2,500	2.22 x 1.7 x 0.6	SMA	EAR99
PE15A5048F 	Power w/ Fan, High Rel	6 - 18	35	3.5		33	2		40	12 / 3,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4062 	High Rel	6 - 18	38	3.5	10	30	1			12 / 1,800	1.75 x 0.93 x 0.35	SMA	EAR99

Power Amplifiers (<4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A4062F 	Power w/ Fan, High Rel	6 - 18	38	3.5	10	30	1			12 / 2,960	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4013 	High Power	7.5 - 11	25	2		33	2	37			1.2 x 1.5 x 0.56	SMA	EAR99
PE15A4014 	Power	8 - 11	25	2		31	1.26	34			1.2 x 1.5 x 0.56	SMA	EAR99
PE15A4015 	High Power	8 - 11	28	3		32	1.585	36			1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5051 	High Rel	8 - 12	30	2		33	2		40	12 / 2,500	1.97 x 0.93 x 0.35	SMA	EAR99
PE15A5051F 	Power w/ Fan, High Rel	8 - 12	30	2		33	2		40	12 / 3,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4008 	Power, High Rel	8 - 12	41	1	3.5	30	1	31		12 / 1,200	2.91 x 2.36 x 0.63	SMA	EAR99
PE15A4063F 	Power w/ Fan, High Rel	8 - 12.4	30	1.75	6	27	0.5			12 / 1,380	2.52 x 5.1 x 2.36	SMA	EAR99
PE15A4063 	High Rel	8 - 12.4	30	1.75	6	27	0.5			12 / 800	1.53 x 0.93 x 0.35	SMA	EAR99
PE15A4006 	Power, High Rel	8.5 - 11	30	0.5	3	30	1		38	15 / 900	2.1 x 1.15 x 0.42	SMA	EAR99
PE15A4007 	Power, High Rel	8.5 - 11	30	0.75	5	36	4		45	12 / 4,500	3.87 x 3.64 x 0.67	SMA	EAR99
PE15A5021 	Power, High Rel	14.4 - 15.4	43	0.5		34.8	3.02		41	15 / 1,500	3.25 x 2.25 x 0.5	SMA	EAR99
PE15A4064 	High Rel	18 - 26.5	28	2.5	7	27	0.5			12 / 1,150	1.08 x 1.48 x 0.35	SMA	EAR99
PE15A4064F 	Power w/ Fan, High Rel	18 - 26.5	28	2.5	7	27	0.5			12 / 1,730	2.52 x 5.1 x 2.36	SMA	EAR99
PE15A4021 	Power	18 - 26.5	33	1.25	5	31	1.26		38	12 / 1,800	1.9 x 1.5 x 0.5	2.92mm	EAR99

Power Amplifiers (<4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5054 	High Rel	18 - 26.5	35	3		33	2		40	12 / 3,500	2.63 x 2.8 x 0.85	SMA	EAR99
PE15A5054F 	Power w/ Fan, High Rel	18 - 26.5	35	3		33	2		40	12 / 4,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A4065 	High Rel	18 - 40	35	4	9	23	0.2			12 / 1,000	1.05 x 1.48 x 0.35	2.92mm	EAR99
PE15A4065F 	Power w/ Fan, High Rel	18 - 40	35	4	9	23	0.2			12 / 1,580	2.52 x 5.1 x 2.36	2.92mm	EAR99
PE15A4050 	Power	26.5 - 40	35	3	4.5	20	0.1	22	28	12 / 270	1.5 x 1 x 0.4	2.92mm	EAR99
PE15A4067 	High Rel	26.5 - 40	35	4	10			27		12 / 3,000	2.22 x 1.7 x 0.6	2.92mm	EAR99
PE15A4067F 	Power w/ Fan, High Rel	26.5 - 40	35	4	10			27		12 / 3,160	5.51 x 5.1 x 2.36	2.92mm	EAR99
PE15A4069 	High Rel	30 - 40	20	2				20		12 / 350	0.83 x 1.48 x 0.35	2.92mm	EAR99
PE15A4069F 	Power w/ Fan, High Rel	30 - 40	20	2				20		12 / 930	2.52 x 5.1 x 2.36	2.92mm	EAR99

High Power Amplifiers (>4W)

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5028 	High Power, High Rel	0.15 MHz - 230 MHz	43	1.5		41.8	15.135	44	48	28 / 5,000	6 x 3 x 1.1	SMA	EAR99
PE15A5028F 	High Power, High Rel	0.15 MHz - 230 MHz	43	1.5		41.8	15.135	44	48	28 / 5,500	8.7 x 5.2 x 3.5	SMA	EAR99
PE15A5029 	High Power, High Rel	0.5 MHz - 500 MHz	44	1.5		40	10	39	42	28 / 2,000	6 x 3 x 1.1	SMA	EAR99
PE15A5029F 	High Power w/ Fan, High Rel	0.5 MHz - 500 MHz	44	1.5		40	10	39	42	28 / 2,000	8.3 x 5.2 x 3.5	SMA	EAR99

High Power Amplifiers (>4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5031 	High Power, High Rel	20 MHz - 1	46	1.5		40	10	44	48	28 / 5,200	6 x 3 x 1.1	SMA	EAR99
PE15A5031F 	High Power w/ Fan, High Rel	20 MHz - 1	46	1.5		40	10	44	48	28 / 5,800	6 x 3 x 1.1	SMA	EAR99
PE15A5004 	High Power	700 MHz - 2.2	30		10	38	6.31	38.5	38.5		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5040 	High Power	800 MHz - 960 MHz	30	1	3	38	6.31		50	12 / 1,800	2.08 x 1.45 x 0.5	SMA	EAR99
PE15A5041 	High Power	800 MHz - 960 MHz	37	1	3	38	6.31		50	12 / 1,800	2.08 x 1.45 x 0.5	SMA	EAR99
PE15A5035F 	High Power, High Rel	800 MHz - 2	41	1.5		40	10	40.8	50	13 / 5,500	8.7 x 5.2 x 3.5	SMA	EAR99
PE15A5020 	High Power, Class A, High Rel	800 MHz - 2.5	40	2		41	12.6		50	12 / 5,500	6 x 3.5 x 0.69	SMA	EAR99
PE15A5042 	High Power	860 MHz - 960 MHz	42	1	3.5	41	12.6	42.5	55	12 / 2,800	3.54 x 1.75 x 0.55	SMA	EAR99
PE15A5039 	High Power	860 MHz - 960 MHz	42	1	3.5	44	25.12		58	12 / 6,500	5 x 3 x 0.85	SMA	EAR99
PE15A5036F 	High Power w/ Fan, High Rel	1 - 2.5	40	1.5		39	8	40	46	13 / 5,500	8.7 x 5.2 x 3.5	SMA	EAR99
PE15A5036 	High Power, High Rel	1 - 2.5	44	1.5		41	12.6	40	46	13 / 5,000	6.8 x 2.7 x 1	SMA	EAR99
PE15A5082 	Power w/ Fan	1 - 2.5	47	3		38	6.31	18	42	28 / 1,900	0 x 0 x 0	SMA	EAR99
PE15A5081 	Power	1 - 2.5	50	3		38	6.31	18	42	28 / 1,900	0 x 0 x 0	SMA	EAR99
PE15A5037 	High Power, High Rel	1 - 3	44	1.5		37.8	6.025	39	48	13 / 3,000	6.8 x 2.7 x 1	SMA	EAR99
PE15A5037F 	High Power w/ Fan, High Rel	1 - 3	44	1.5		37.8	6.025	39	48	13 / 4,000	8.7 x 5.2 x 3.5	SMA	EAR99

High Power Amplifiers (>4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5001 	High Power, High Rel	1.2 - 1.4	40	0.3		40	10			12 / 4,000	3.64 x 3.87 x 0.67	SMA	EAR99
PE15A5005 	High Power	1.5 - 3.5	20	1.25	10	38.5	7.1	39	45		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5073 	Power	1.7 - 2.4	54	3		42	15.85	35	44	28 / 3,600	0 x 0 x 0	SMA	EAR99
PE15A5015 	High Power, High Rel	1.7 - 2.5	11	0.5		37	5.01			12 / 800	3.75 x 1.9 x 0.493	SMA	EAR99
PE15A5038 	Power	2 - 4	39	1.5		37.8	6.025	39	48	13 / 3,000	6.8 x 2.7 x 1	SMA	EAR99
PE15A5047 	High Rel	2 - 6	40	3.5		37	5.01		44	12 / 7,000	2.22 x 1.7 x 0.6	SMA	EAR99
PE15A5047F 	Power w/ Fan, High Rel	2 - 6	40	3.5		37	5.01		44	12 / 8,160	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A5018 	High Power, High Rel	2.3 - 2.7	55	0.5		41.5	14.125		53	12 / 5,500	6 x 3.5 x 0.69	SMA	EAR99
PE15A5006 	High Power	2.5 - 4	19	0.5	8	38	6.31	38.5	45		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5007 	High Power	2.6 - 4.2	19	1	9	39	8	39	47		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5003 	High Power, High Rel	3.1 - 3.5	47	1.5	3.5	43	20			12 / 9,000	2.85 x 7.99 x 0.63	SMA	EAR99
PE15A5008 	High Power	3.5 - 7	19	2	12	37	5.01	38	47		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5009 	High Power	5.5 - 9.5	24	2	8.5	37	5.01	38	47		1.2 x 1.5 x 0.56	SMA	EAR99
PE15A5050 	High Rel	6 - 18	40	5		40	10		46	12 / 13,000	2.63 x 2.8 x 0.85	SMA	EAR99
PE15A5050F 	Power w/ Fan, High Rel	6 - 18	40	5		40	10		46	15 / 14,160	5.51 x 5.1 x 2.36	SMA	EAR99

High Power Amplifiers (>4W) Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5049 	High Rel	6 - 18	41	5		37	5.01		44	12 / 7,500	2.2 x 2 x 0.85	SMA	EAR99
PE15A5049F 	Power w/ Fan, High Rel	6 - 18	41	5		37	5.01		44	12 / 8,660	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A5053 	High Rel	8 - 12	30	2.5		40	10		47	12 / 14,000	2.65 x 2 x 0.85	SMA	EAR99
PE15A5053F 	Power w/ Fan, High Rel	8 - 12	30	2.5		40	10		47	12 / 15,160	5.51 x 5.1 x 2.36	SMA	EAR99
PE15A5052 	High Rel	8 - 12	40	2		37	5.01		44	12 / 6,000	2.22 x 1.7 x 0.6	SMA	EAR99
PE15A5044 	High Power, High Rel	8.5 - 10.5	36	1.5		38.5	7.1		47	12 / 4,000	2.36 x 2.91 x 0.63	SMA	EAR99
PE15A5043 	High Power, High Rel	8.5 - 11	30	0.75	5	38.5	7.1		46	12 / 7,500	3.87 x 3.64 x 0.67	SMA	EAR99
PE15A4020 	High Power	17.5 - 21.5	40	1.5	5	37	5.01		45	12 / 3,500	2.6 x 2 x 0.5	2.92mm	EAR99

GaN High Power Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5011 	High Power, High Rel	30 MHz - 2.5	43	2				40		28 / 1,200	3.75 x 2 x 1.063	SMA	EAR99
PE15A5027 	High Power	100 MHz - 6	60	1.25	10			40		28 / 2,200	2.5 x 2.75 x 0.45	SMA	EAR99
PE15A5059 	High Power, High Rel	500 MHz - 2.5	48	2				47		28 / 7,000	5.5 x 3.3 x 0.98	SMA	EAR99
PE15A5060 	High Power, High Rel	500 MHz - 2.5	50	2		43	20	50		28 / 13,000	7.08 x 3.54 x 0.98	SMA	EAR99
PE15A5032 	High Power, High Rel	500 MHz - 3	48	2		44	25.12	47	52	36 / 8,333	0 x 0 x 0	SMA	EAR99

GaN High Power Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5033 	High Power, High Rel	700 MHz - 2.7	45	1.5				50		30 / 8,733	7.25 x 4.25 x 0.95	SMA	EAR99
PE15A5033F 	High Power w/ Fan, High Rel	700 MHz - 2.7	45	1.5				50		30 / 8,733	10.75 x 7 x 3.75	SMA	EAR99
PE15A5017 	High Power, High Rel	700 MHz - 6	43	2				40		32 / 2,000	3.75 x 1.75 x 1.06	SMA	EAR99
PE15A5062 	High Power, High Rel	800 MHz - 4.2	47	2				47		28 / 13,000	7.08 x 4.72 x 0.98	SMA	EAR99
PE15A5063 	High Power, High Rel	1 - 2	53	1.5				53		28 / 20,000	7.87 x 5.9 x 0.98	SMA	EAR99
PE15A5026 	High Power	1 - 3	50	1.25	10			47		28 / 4,000	2.5 x 2.75 x 0.45	SMA	EAR99
PE15A5064 	High Power, High Rel	1.2 - 1.6	48	2.5				47		28 / 8,000	5.51 x 3.35 x 0.81	SMA	EAR99
PE15A5066 	High Power, High Rel	2 - 6	43	2				43		28 / 3,000	6.23 x 3.94 x 0.98	SMA	EAR99
PE15A5067 	High Power, High Rel	2 - 6	46	2				46		28 / 6,000	6.2 x 3 x 0.98	SMA	EAR99
PE15A5024 	High Power, High Rel	2 - 6	50	1.25	7			44		28 / 3,000	2.5 x 2.75 x 0.45	SMA	EAR99
PE15A5068 	High Power, High Rel	2 - 18	37	3.5				37		22 / 2,500	4.72 x 3.15 x 0.87	SMA	EAR99
PE15A5069 	High Power, High Rel	6 - 10	43	2				43		24 / 7,000	6.3 x 4.7 x 0.86	SMA	EAR99
PE15A5070 	High Power, High Rel	6 - 18	40	2				40		28 / 3,000	5.9 x 3.54 x 0.98	SMA	EAR99
PE15A5016 	High Power, High Rel	6.4 - 7.1	58	2				43		33 / 2,300	6 x 2.5 x 1.06	SMA	EAR99
PE15A5071 	High Power, High Rel	8 - 12	43	2				43		28 / 5,000	6.3 x 4.7 x 0.98	SMA	EAR99

GaN High Power Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A5072 	High Power, High Rel	8 - 12	46	2				46		28 / 9,000	6.3 x 4.7 x 0.86	SMA	EAR99

Bi-Directional Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Tx Gain (dB)	Gain Variation +/- (dB)	P1dB (Watts) Linear	Rx P1dB (dBm)	Rx NF (dB)	Rx Gain (dB)	DC Power Tx (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15B5003 	High Power	30 MHz - 2.7	36	2			2	30	12 / 1,400	3.25 x 2.42 x 0.54	SMA	EAR99
PE15B5007 		225 MHz - 512 MHz	36	0.5			2.5	15	28 / 1,600		SMA	EAR99
PE15B5000 	High Power, High Rel	2.4 - 2.5	20	0.5	0.1	20	2.5	11	28 /	3.33 x 2.69 x 0.69	SMA	EAR99
PE15B5004 		4.4 - 4.9	45	1			3.5	10	28 / 4,600		SMA	EAR99
PE15B5005 		4.4 - 5.1	10	1			3	10	28 / 1,750		SMA	EAR99
PE15B5006 		5.125 - 5.875	43	1.25			3	10	28 / 2,500		SMA	EAR99

Variable Gain Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	Atten. Range (dB)	Step Size (dB)	P1dB (dBm)	AC Power (WAC)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A7000 	Variable Gain, High Rel	100 MHz - 18	50	2	6.5	0 - 60	1	14	120	19 x 10.79 x 1.73	SMA	EAR99
PE15A7001 	Variable Gain	500 MHz - 2	45	2	3.5			18			SMA	EAR99
PE15A7002 	Variable Gain	500 MHz - 4	43	2	4			18			SMA	EAR99
PE15A7009 	Variable Gain	1 - 18	48	3	3.5			17			SMA	EAR99

Variable Gain Amplifiers Continued

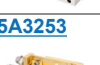
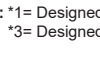
PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	Atten. Range (dB)	Step Size (dB)	P1dB (dBm)	AC Power (WAC)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	ECCN
PE15A7010 	Variable Gain	1 - 26.5	43	4	5.5			11		1.39 x 1.4 x 0.4	SMA	EAR99
PE15A7011 	Variable Gain	1 - 40	45	5	5			10		1.39 x 1.4 x 0.4	2.92mm	EAR99
PE15A7003 	Variable Gain	2 - 6	42	2	2			16			SMA	EAR99
PE15A7004 	Variable Gain	2 - 8	43	3	2.5			16			SMA	EAR99
PE15A7005 	Variable Gain	4 - 12	47	3	3.5			17			SMA	EAR99
PE15A7006 	Variable Gain	6 - 18	45	3	3			16			SMA	EAR99
PE15A7007 	Variable Gain	18 - 26.5	45	3	5.5			15		1.4 x 1.39 x 0.4	SMA	EAR99
PE15A7012 	Variable Gain	18 - 40	48	5	5			11		1.4 x 1.39 x 0.4	2.92mm	EAR99
PE15A7008 	Variable Gain	26.5 - 40	46	4	5			11		1.4 x 1.39 x 0.4	2.92mm	EAR99

High Rel Amplifiers

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15B5000 	Bi Directional, High Rel	2.4 - 2.5	20	0.5	2.5	20	0.1			28 /	3.33 x 2.69 x 0.69	SMA	*1	EAR99
PE15A4032 	Broadband, High Rel	10 MHz - 6	24	0.75	5	29.5	0.9		42	15 / 740	2.305 x 2.6 x 0.54	SMA	*4	EAR99
PE15A3037 	Broadband, High Rel	10 MHz - 15	12	0.3	4	28	0.63	29	36	16 / 360	4.23 x 1.7 x 1.68	SMA	*4	EAR99
PE15A4029 	Broadband, High Rel	10 MHz - 20	13	0.75	3	23	0.2	25	30	15 / 225	0.86 x 0.7 x 0.29	SMA	*4	EAR99

Notes: *1= Designed to meet test conditions for MIL-STD-810; *2= Designed to meet test conditions for MIL-STD-202;
*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A3272 	Broadband, High Rel	10 MHz - 20	15	0.5	3	22	0.16	24	30	12 / 195	0.86 x 0.7 x 0.29	SMA	*4	EAR99
PE15A3254 	Broadband, High Rel	30 MHz - 20	15	2.5	3	20	0.1		29	15 / 180	1.08 x 0.36 x 0.18	SMA	*2	EAR99
PE15A3312 	Broadband, High Rel	30 MHz - 26.5	15	2	5.5	16	0.04			15 / 230	1.08 x 0.71 x 0.29	SMA		EAR99
PE15A3267 	Broadband, High Rel	100 MHz - 26.5	15	2	5	15	0.03		23	15 / 200	0.9 x 1.05 x 0.38	SMA	*3	EAR99
PE15A4038 	Broadband, High Rel	500 MHz - 2	14	0.4	2.7	24	0.25		34	12 / 180	1.1 x 0.9 x 0.5	SMA	*3	EAR99
PE15A3014 	Broadband, High Rel	500 MHz - 2	30	0.6	2.7	24	0.25		34	12 / 240	0.9 x 1.1 x 0.5	SMA	*3	EAR99
PE15A3015 	Broadband, High Rel	500 MHz - 2	46	0.8	2.7	24	0.25		34	12 / 300	1.35 x 0.9 x 0.5	SMA	*3	EAR99
PE15A4039 	Broadband, High Rel	500 MHz - 2.5	24	0.5	3.5	24	0.25			12 / 240	1.13 x 0.5 x 0.9	SMA	*3	EAR99
PE15A3263 	Broadband, High Rel	500 MHz - 18	33	1.5	4	15	0.03			12 / 220	1.093 x 1.33 x 0.382	SMA	*3	EAR99
PE15A3253 	Broadband, High Rel	500 MHz - 20	14	1.75	3	14	0.025		29	15 / 75	1.08 x 0.36 x 0.18	SMA	*2	EAR99
PE15A3264 	Broadband, High Rel	800 MHz - 5.5	20	0.5		25	0.315	28	34	12 / 750	1.093 x 1.33 x 0.382	SMA	*3	EAR99
PE15A3262 	Broadband, High Rel	1 - 18	30	1.5		19	0.1	20		12 / 240	1.093 x 1.33 x 0.382	SMA	*3	EAR99
PE15A3500 	Broadband, High Rel	1 - 20	60	3	5	10	0.01				4.92 x 4.92 x 2.1	SMA	*2	EAR99
PE15A3512 	Broadband, High Rel	1 - 20	60	3	5	10	0.01				4.92 x 4.92 x 2.1	SMA	*2	EAR99
PE15A3513 	Broadband, High Rel	1 - 20	60	3	5	10	0.01				4.92 x 4.92 x 2.1	SMA	*2	EAR99

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*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

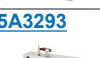
High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A3514 	Broadband, High Rel	1 - 40	40	2.5	5	10	0.01			12 /	4.92 x 4.92 x 2.26	2.92mm	*2	EAR99
PE15A3515 	Broadband, High Rel	1 - 40	40	2.5	5	10	0.01			12 /	4.92 x 4.92 x 2.1	2.92mm	*2	EAR99
PE15A3595 	Broadband, High Rel	1 - 40	40	2.5	5	22	0.16			12 /	4.92 x 4.92 x 2.1	2.92mm	*2	EAR99
PE15A3276 	Broadband, High Rel	1.8 - 4.2	26		1.2	15.5	0.035	17.5	26	12 / 105	1.086 x 0.85 x 0.34	SMA	*4	EAR99
PE15A4040 	Broadband, High Rel	2 - 6	13	0.4	5.4	23	0.2		33	12 / 180	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A4041 	Broadband, High Rel	2 - 6	22	0.6	5.4	27	0.5		37	12 / 420	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A4003 	Broadband, High Rel	2 - 6	32	1	5	33	2		42	15 / 1,700	1.93 x 2.36 x 0.67	SMA	*3	EAR99
PE15A4005 	Broadband, High Rel	2 - 6	33	1	5	30	1		39	12 / 1,000	1.837 x 1.15 x 0.67	SMA	*3	EAR99
PE15A4042 	Broadband, High Rel	2 - 6	36	1.5	6	34	2.51			15 / 2,200	3.87 x 3.64 x 0.67	SMA		EAR99
PE15A4043 	Broadband, High Rel	2 - 6	44	1	4.5	35	3.16		45	12 / 4,200	3.87 x 3.64 x 0.67	SMA	*3	EAR99
PE15A3503 	Broadband, High Rel	2 - 6	44	1	5	30	1		39	15 / 1,050	1.837 x 1.15 x 0.67	SMA	*3	EAR99
PE15A3290 	Broadband, High Rel	2 - 8	14		2.5	13	0.02			12 / 120	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A3291 	Broadband, High Rel	2 - 8	30		2.5	13	0.02			12 / 150	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A3016 	Broadband, High Rel	2 - 8	33	1.5		29.4	0.87			8.5 / 941	2.15 x 1.55 x 0.36	SMA	*3	EAR99
PE15A3265 	Broadband, High Rel	2 - 18	33	1.5	3.5	13	0.02			12 / 180	1.093 x 1.33 x 0.382	SMA	*3	EAR99

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High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A3271 	Broadband, High Rel	2-20	13	0.5	2	16	0.04	21	26	12 /	0.75 x 0.7 x 0.29	SMA	*4	EAR99
PE15A3270 	Broadband, High Rel	2-20	14.5		2.5	13	0.02	15.5	23	12 / 78	0.64 x 0.59 x 0.29	SMA	*4	EAR99
PE15A4027 	Broadband, High Rel	2-20	15	0.75		26	0.4		30	12 / 310	1.5 x 0.7 x 0.29	SMA	*4	EAR99
PE15A4030 	Broadband, High Rel	2-20	31	0.75	3	26	0.4		30	15 / 400	0.86 x 0.7 x 0.29	SMA	*4	EAR99
PE15A3038 	Broadband, High Rel	2-35	12	0.4	4	18	0.06	18.5	26	16 /	1.086 x 0.195 x 0.85	2.92mm	*4	3A001. B.4.C
PE15A4046 	Broadband, High Rel	3.1-3.5	30	0.7	4.5	30	1			12 / 900	2.17 x 0.86 x 0.32	SMA	*3	EAR99
PE15A4044 	Broadband, High Rel	6-12	16	0.6	5	27	0.5		37	12 / 400	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A3292 	Broadband, High Rel	6-12	17		2.5	7	5			12 / 100	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A4045 	Broadband, High Rel	6-12	28	0.8	5	27	0.5			12 / 500	1.333 x 1.093 x 0.382	SMA	*3	EAR99
PE15A3293 	Broadband, High Rel	6-12	30		2.5					12 / 200	1.583 x 1.093 x 0.382	SMA	*3	EAR99
PE15A4001 	Broadband, High Rel	6-12	37	1.5	6	33	2		42	15 / 2,500	2.36 x 1.93 x 0.67	SMA	*3	EAR99
PE15A4004 	Broadband, High Rel	6-12	38	1	5	30	1		39	15 / 1,300	2.36 x 1.55 x 0.5	SMA	*3	EAR99
PE15A3506 	Broadband, High Rel	6-12	47	1.5	6	33	2		42	15 / 2,500	2.36 x 1.93 x 0.67	SMA	*3	EAR99
PE15A3505 	Broadband, High Rel	6-12	48	1	5	30	1		39	15 / 1,350	2.36 x 1.55 x 0.65	SMA	*3	EAR99
PE15A3295 	Broadband, High Rel	6-18	14		3	13	0.02			12 / 100	1.083 x 1.093 x 0.382	SMA	*3	EAR99

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High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A3018 	Broadband, High Rel	6 - 18	30	1	3.5	28	0.63			12 / 1,300	2.1 x 1.15 x 0.42	SMA	*3	EAR99
PE15A3019 	Broadband, High Rel	6 - 18	30	1.5		30	1			18 / 1,700	2.65 x 2.5 x 0.45	SMA	*3	EAR99
PE15A3294 	Broadband, High Rel	6 - 18	30		2.5	10	0.01			12 / 200	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A3017 	Broadband, High Rel	6 - 18	36	2		27	0.5			15 / 800	1.093 x 2.083 x 0.382	SMA	*3	EAR99
PE15A3020 	Broadband, High Rel	6 - 18	42	2	5.4	27	0.5		37	12 / 900	2.083 x 1.093 x 0.5	SMA	*3	EAR99
PE15A3273 	Broadband, High Rel	7 - 17	22		2.5	14	0.025			12 / 93	0.64 x 0.59 x 0.29	SMA	*4	EAR99
PE15A3296 	Broadband, High Rel	12 - 18	18		3.5	13	0.02			12 / 100	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A4002 	Broadband, High Rel	12 - 18	33	2	6	30	1		39	15 / 2,000	1.55 x 2.36 x 0.5	SMA	*3	EAR99
PE15A3507 	Broadband, High Rel	12 - 18	43	2	6	30	1		39	15 / 2,000	2.36 x 1.55 x 0.5	SMA	*3	EAR99
PE15A4028 	Broadband, High Rel	17 - 24	22			24	0.25			12 / 250	1.086 x 0.85 x 0.36	2.92mm	*4	EAR99
PE15A3274 	Broadband, High Rel	17 - 27	19		2.75	13.5	0.02			12 / 96	0.64 x 0.59 x 0.29	2.92mm	*4	EAR99
PE15A3268 	Broadband, High Rel	18 - 40	18	2	5.5	10	0.01			15 / 250	1 x 1.75 x 0.41	2.4mm	*2	3A001. B.4.C
PE15A3508 	Broadband, High Rel	20 - 40	30	2	5	10	0.01				4.92 x 4.92 x 2.26	2.92mm	*2	EAR99
PE15A3509 	Broadband, High Rel	20 - 40	30	2	5	10	0.01				4.92 x 4.92 x 2.26	2.92mm	*2	EAR99
PE15A3510 	Broadband, High Rel	20 - 40	60	3	5	10	0.01				4.92 x 4.92 x 2.26	2.92mm	*2	EAR99

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High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A3511 	Broadband, High Rel	20 - 40	60	3	5	10	0.01				4.92 x 4.92 x 2.26	2.92mm	*2	EAR99
PE15A3275 	Broadband, High Rel	29 - 36	20		2.9	11	0.01			3 / 80	1.086 x 0.85 x 0.375	2.92mm	*2	EAR99
PE15A8004 	Gain Block, High Rel	500 MHz - 2	17	0.4	1.8				25	12 / 70	1.1 x 0.9 x 0.5	SMA	*3	EAR99
PE15A8005 	Gain Block, High Rel	500 MHz - 2	50	1.8					25	12 / 180	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A8006 	Gain Block, High Rel	6 - 12	12	0.4	2.3	10	0.01		20	12 / 80	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A8007 	Gain Block, High Rel	6 - 18	17	0.6	4.5	20	0.1			12 / 160	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A6002 	Limiting, High Rel	1 - 2	60	2.5	2.5	-40 to 10		19		13 / 250	1.602 x 0.66 x 0.38	SMA	*3	EAR99
PE15A6015 	Limiting, High Rel	2 - 4	40		2.5	-20 to 10		19		15 / 200	1.358 x 0.66 x 0.38	SMA	*3	EAR99
PE15A6007 	Limiting, High Rel	2 - 6	80	3	4	-61 to 10		15		13 / 550	1.602 x 0.66 x 0.38	SMA	*3	EAR99
PE15A6008 	Limiting, High Rel	2 - 8	40	2	5	-20 to 15		19		13 / 300	1.6 x 1.15 x 0.42	SMA	*3	EAR99
PE15A6012 	Limiting, High Rel	6 - 18	40	2	4	-20 to 15		19		13 / 300	1.85 x 1.15 x 0.42	SMA	*3	EAR99
PE15A2003 	Log, High Rel	500 MHz - 18									3 x 3.5 x 0.5	SMA	*2	EAR99
PE15A2001 	Log, High Rel	2 - 6									3.75 x 1.5 x 0.5	SMA	*2	EAR99
PE15A2004 	Log, High Rel	6 - 18									2.2 x 1.5 x 0.4	SMA	*3	EAR99
PE15A1000 	Low Noise, High Rel	1 - 2	35	1	1.5	10	0.01	10		13 / 200	1.77 x 1 x 0.5	SMA	*3	EAR99

Notes: *1= Designed to meet test conditions for MIL-STD-810; *2= Designed to meet test conditions for MIL-STD-202;
*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A1031 	Low Noise, High Rel	1 - 12	16		1.75	17	0.05			6 / 60	1.14 x 1.9 x 0.56	SMA	*3	EAR99
PE15A1023 	Low Noise, High Rel	1.2 - 1.4	25	0.75	1.5	10	0.01			13.2 / 150	2.32 x 2.32 x 0.71	SMA	*3	EAR99
PE15A1024 	Low Noise, High Rel	1.2 - 1.4	35	0.75	1.5	17	0.05			13.2 / 180	2.32 x 2.32 x 0.71	SMA	*3	EAR99
PE15A1005 	Low Noise, High Rel	1.2 - 1.4	40	0.75	1.5	15	0.032			13.2 / 200	1.78 x 1.17 x 0.382	SMA	*3	EAR99
PE15A1034 	Low Noise, High Rel	1.5 - 5	14		4.5	17	0.05		27	9 / 170	1.14 x 1.9 x 0.56	SMA		EAR99
PE15A1001 	Low Noise, High Rel	2 - 4	38	1	2	13	0.02	13		13 / 200	2.283 x 1.093 x 0.382	SMA	*3	EAR99
PE15A1030 	Low Noise, High Rel	2 - 18	12.5		6.5	13	0.02			5 / 80	0.64 x 0.7 x 0.29	SMA		EAR99
PE15A1035 	Low Noise, High Rel	3 - 8	11		6	14	0.025		25	7 / 250	1.14 x 1.9 x 0.56	SMA		EAR99
PE15A1006 	Low Noise, High Rel	3.1 - 3.5	40	0.3	1.1	15	0.032			17 / 150	2.537 x 1.15 x 0.67	SMA	*3	EAR99
PE15A1002 	Low Noise, High Rel	4 - 8	38	1	2	13	0.02	13		13 / 250	2.283 x 1.093 x 0.382	SMA	*3	EAR99
PE15A9002 	Low Noise, High Rel	5 - 9	22.5		1.75	14.8	0.03		25	12 / 105	1.086 x 0.85 x 0.36	SMA	*4	EAR99
PE15A1032 	Low Noise, High Rel	6 - 12	11	1	4.5	20	0.1	22	34	7 / 200	1.14 x 1.9 x 0.56	SMA	*4	EAR99
PE15A1033 	Low Noise, High Rel	7 - 11	9		6	22	0.159	25	33	7 / 300	1.14 x 1.9 x 0.56	SMA	*4	EAR99
PE15A1027 	Low Noise, High Rel	8 - 12	18	1	2.2	13	0.02	13		13 / 150	1.083 x 1.093 x 0.382	SMA	*3	EAR99
PE15A1026 	Low Noise, High Rel	8 - 12	28	1	2.2	13	0.02	13		13 / 200	1.333 x 1.093 x 0.382	SMA	*3	EAR99

Notes: *1= Designed to meet test conditions for MIL-STD-810; *2= Designed to meet test conditions for MIL-STD-202;

*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A1003M 	Low Noise, High Rel	8 - 12	38	1	2.2	13	0.02	13		13 / 250	2.283 x 1.093 x 0.382	SMA	*3	EAR99
PE15A1003 	Low Noise, High Rel	8 - 12	38	1	2.2			13		13 / 250	1.58 x 1.093 x 0.382	SMA	*3	EAR99
PE15A1025 	Low Noise, High Rel	8 - 12	48	1	2.2			13		13 / 300	2.83 x 1.093 x 0.382	SMA	*3	EAR99
PE15A1004 	Low Noise, High Rel	12 - 18	38	1	3	13	0.02	13		13 / 300	2.283 x 1.093 x 0.382	SMA	*3	EAR99
PE15A5028 	Power, High Rel	0.15 MHz - 230 MHz	43	1.5		41.8	15.135	44	48	28 / 5,000	6 x 3 x 1.1	SMA	*1	EAR99
PE15A5028F 	Power, High Rel	0.15 MHz - 230 MHz	43	1.5		41.8	15.135	44	48	28 / 5,500	8.7 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5029 	Power, High Rel	0.5 MHz - 500 MHz	44	1.5		40	10	39	42	28 / 2,000	6 x 3 x 1.1	SMA	*1	EAR99
PE15A5029F 	Power, High Rel	0.5 MHz - 500 MHz	44	1.5		40	10	39	42	28 / 2,000	8.3 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5030 	Power, High Rel	1 MHz - 1	36	1.5		33	2	36	39	28 / 1,200	6 x 3 x 1.1	SMA	*1	EAR99
PE15A5030F 	Power, High Rel	1 MHz - 1	36	1.5		33	2	36	39	28 / 1,700	8.7 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5055 	Power, High Rel	1.5 MHz - 30 MHz	47	2				47		28 / 5,000	5.9 x 3.5 x 0.98	SMA		EAR99
PE15A5056 	Power, High Rel	1.5 MHz - 100 MHz	47	2				47		28 / 5,000	5.9 x 3.5 x 0.98	SMA		EAR99
PE15A5065 	Power, High Rel	20 MHz - 520 MHz	51	2				50		28 / 9,000	5.91 x 3.54 x 0.98	SMA		EAR99
PE15A5031 	Power, High Rel	20 MHz - 1	46	1.5		40	10	44	48	28 / 5,200	6 x 3 x 1.1	SMA	*1	EAR99
PE15A5031F 	Power, High Rel	20 MHz - 1	46	1.5		40	10	44	48	28 / 5,800	6 x 3 x 1.1	SMA	*1	EAR99

Notes: *1= Designed to meet test conditions for MIL-STD-810; *2= Designed to meet test conditions for MIL-STD-202;
*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5057 	Power, High Rel	20 MHz - 1	49	2				49		28 / 11,000		SMA		
PE15A5011 	Power, High Rel	30 MHz - 2.5	43	2				40		28 / 1,200	3.75 x 2 x 1.063	SMA	*2	EAR99
PE15A5086 	Power, High Rel	30 MHz - 2.7	35	1.5				39		30 / 1,400	3.25 x 2.42 x 0.54	SMA	*1	
PE15A4009 	Power, High Rel	50 MHz - 1	26	0.75	5	28	0.63		36	12 / 450	2.32 x 2.32 x 0.71	SMA	*3	EAR99
PE15A4052 	Power, High Rel	100 MHz - 18	37	3	6	31	1.26			15 / 1,000		SMA	*2	
PE15A4052F 	Power, High Rel	100 MHz - 18	37	3	6	31	1.26			15 / 2,160		SMA		
PE15A5058 	Power, High Rel	500 MHz - 1	50	2				50		28 / 10,000	5.91 x 3.54 x 0.98	SMA		EAR99
PE15A5059 	Power, High Rel	500 MHz - 2.5	48	2				47		28 / 7,000	5.5 x 3.3 x 0.98	SMA		EAR99
PE15A5060 	Power, High Rel	500 MHz - 2.5	50	2		43	20	50		28 / 13,000	7.08 x 3.54 x 0.98	SMA		EAR99
PE15A5032 	Power, High Rel	500 MHz - 3	48	2		44	25.12	47	52	36 / 8,333		SMA	*1	EAR99
PE15A4053 	Power, High Rel	500 MHz - 4	30	3	6	30	1			12 / 1,500	1.97 x 0.93 x 0.35	SMA	*2	EAR99
PE15A4053F 	Power, High Rel	500 MHz - 4	30	3	6	30	1			12 / 2,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5033 	Power, High Rel	700 MHz - 2.7	45	1.5				50		30 / 8,733	7.25 x 4.25 x 0.95	SMA	*1	EAR99
PE15A5033F 	Power, High Rel	700 MHz - 2.7	45	1.5				50		30 / 8,733	10.75 x 7 x 3.75	SMA	*1	EAR99
PE15A5017 	Power, High Rel	700 MHz - 6	43	2				40		32 / 2,000	3.75 x 1.75 x 1.06	SMA	*2	EAR99

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*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5061 	Power, High Rel	800 MHz - 1	53	2				53		28 / 25,000	7.9 x 5.9 x 0.98	SMA		EAR99
PE15A5035F 	Power, High Rel	800 MHz - 2	41	1.5		40	10	40.8	50	13 / 5,500	8.7 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5020 	Power, High Rel	800 MHz - 2.5	40	2		41	12.6		50	12 / 5,500	6 x 3.5 x 0.69	SMA	*2	EAR99
PE15A5062 	Power, High Rel	800 MHz - 4.2	47	2				47		28 / 13,000	7.08 x 4.72 x 0.98	SMA		EAR99
PE15A5063 	Power, High Rel	1 - 2	53	1.5				53		28 / 20,000	7.87 x 5.9 x 0.98	SMA		EAR99
PE15A5036F 	Power, High Rel	1 - 2.5	40	1.5		39	8	40	46	13 / 5,500	8.7 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5036 	Power, High Rel	1 - 2.5	44	1.5		41	12.6	40	46	13 / 5,000	6.8 x 2.7 x 1	SMA	*1	EAR99
PE15A5037 	Power, High Rel	1 - 3	44	1.5		37.8	6.025	39	48	13 / 3,000	6.8 x 2.7 x 1	SMA	*1	EAR99
PE15A5037F 	Power, High Rel	1 - 3	44	1.5		37.8	6.025	39	48	13 / 4,000	8.7 x 5.2 x 3.5	SMA	*1	EAR99
PE15A5001 	Power, High Rel	1.2 - 1.4	40	0.3		40	10			12 / 4,000	3.64 x 3.87 x 0.67	SMA	*3	EAR99
PE15A5064 	Power, High Rel	1.2 - 1.6	48	2.5				47		28 / 8,000	5.51 x 3.35 x 0.81	SMA		EAR99
PE15A5015 	Power, High Rel	1.7 - 2.5	11	0.5		37	5.01			12 / 800	3.75 x 1.9 x 0.493	SMA	*2	EAR99
PE15A5047 	Power, High Rel	2 - 6	40	3.5		37	5.01		44	12 / 7,000	2.22 x 1.7 x 0.6	SMA	*2	EAR99
PE15A5047F 	Power, High Rel	2 - 6	40	3.5		37	5.01		44	12 / 8,160	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5066 	Power, High Rel	2 - 6	43	2				43		28 / 3,000	6.23 x 3.94 x 0.98	SMA		EAR99

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High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5067 	Power, High Rel	2-6	46	2				46		28 / 6,000	6.2 x 3 x 0.98	SMA		EAR99
PE15A5024 	Power, High Rel	2-6	50	1.25	7			44		28 / 3,000	2.5 x 2.75 x 0.45	SMA	*1,*2	EAR99
PE15A4054 	Power, High Rel	2-8	38	2.5	5.5	30	1			12 / 1,200	1.82 x 0.93 x 0.35	SMA	*2	EAR99
PE15A4054F 	Power, High Rel	2-8	38	2.5	5.5	30	1			12 / 2,360	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4055 	Power, High Rel	2-12	35	4		33	2		40	15 / 4,500	2.22 x 2 x 0.6	SMA	*2	EAR99
PE15A4055F 	Power, High Rel	2-12	35	4		33	2		40	15 / 5,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4056 	Power, High Rel	2-18	30	2.5		30	1		37	12 / 2,500	2.22 x 1.7 x 0.6	SMA	*2	EAR99
PE15A4056F 	Power, High Rel	2-18	30	2.5		30	1		37	12 / 3,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4057 	Power, High Rel	2-18	30	4		33	2		40	12 / 5,000	2.22 x 2 x 0.6	SMA	*2	EAR99
PE15A4057F 	Power, High Rel	2-18	30	4		33	2		40	12 / 6,160	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5068 	Power, High Rel	2-18	37	3.5				37		22 / 2,500	4.72 x 3.15 x 0.87	SMA		EAR99
PE15A4058 	Power, High Rel	2-20	30	5.5		31	1.26		38	12 / 4,500	2.22 x 1.7 x 0.6	SMA	*2	EAR99
PE15A4058F 	Power, High Rel	2-20	30	5.5		31	1.26		38	12 / 5,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5018 	Power, High Rel	2.3-2.7	55	0.5		41.5	14.125		53	12 / 5,500	6 x 3.5 x 0.69	SMA	*2	EAR99
PE15A5002 	Power, High Rel	3.1-3.5	45	1.5	4			40		15 / 5,000	3.64 x 3.87 x 0.67	SMA	*3	EAR99

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*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5003 	Power, High Rel	3.1 - 3.5	47	1.5	3.5	43	20			12 / 9,000	2.85 x 7.99 x 0.63	SMA	*3	EAR99
PE15A5069 	Power, High Rel	6 - 10	43	2				43		24 / 7,000	6.3 x 4.7 x 0.86	SMA		EAR99
PE15A4060 	Power, High Rel	6 - 12	47	2.5	6.5	30.5	1.12			12 / 1,500	1.97 x 0.93 x 0.35	SMA	*2	EAR99
PE15A4060F 	Power, High Rel	6 - 12	47	2.5	6.5	30.5	1.12			12 / 2,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4061F 	Power, High Rel	6 - 18	30	2.5	7	27	0.5			12 / 1,380	2.52 x 5.1 x 2.36	SMA		EAR99
PE15A4061 	Power, High Rel	6 - 18	30	2.5	7	27	0.5			12 / 800	1.53 x 0.93 x 0.35	SMA	*2	EAR99
PE15A5048 	Power, High Rel	6 - 18	35	3.5		33	2		40	12 / 2,500	2.22 x 1.7 x 0.6	SMA	*2	EAR99
PE15A5048F 	Power, High Rel	6 - 18	35	3.5		33	2		40	12 / 3,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4062 	Power, High Rel	6 - 18	38	3.5	10	30	1			12 / 1,800	1.75 x 0.93 x 0.35	SMA	*2	EAR99
PE15A4062F 	Power, High Rel	6 - 18	38	3.5	10	30	1			12 / 2,960	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5070 	Power, High Rel	6 - 18	40	2				40		28 / 3,000	5.9 x 3.54 x 0.98	SMA		EAR99
PE15A5050 	Power, High Rel	6 - 18	40	5		40	10		46	12 / 13,000	2.63 x 2.8 x 0.85	SMA	*2	EAR99
PE15A5050F 	Power, High Rel	6 - 18	40	5		40	10		46	15 / 14,160	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5049 	Power, High Rel	6 - 18	41	5		37	5.01		44	12 / 7,500	2.2 x 2 x 0.85	SMA	*2	EAR99
PE15A5049F 	Power, High Rel	6 - 18	41	5		37	5.01		44	12 / 8,660	5.51 x 5.1 x 2.36	SMA		EAR99

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High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5016 	Power, High Rel	6.4 - 7.1	58	2				43		33 / 2,300	6 x 2.5 x 1.06	SMA	*2	EAR99
PE15A5051 	Power, High Rel	8 - 12	30	2		33	2		40	12 / 2,500	1.97 x 0.93 x 0.35	SMA	*2	EAR99
PE15A5051F 	Power, High Rel	8 - 12	30	2		33	2		40	12 / 3,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5053 	Power, High Rel	8 - 12	30	2.5		40	10		47	12 / 14,000	2.65 x 2 x 0.85	SMA	*2	EAR99
PE15A5053F 	Power, High Rel	8 - 12	30	2.5		40	10		47	12 / 15,160	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A5052 	Power, High Rel	8 - 12	40	2		37	5.01		44	12 / 6,000	2.22 x 1.7 x 0.6	SMA		EAR99
PE15A4008 	Power, High Rel	8 - 12	41	1	3.5	30	1	31		12 / 1,200	2.91 x 2.36 x 0.63	SMA	*3	EAR99
PE15A5071 	Power, High Rel	8 - 12	43	2				43		28 / 5,000	6.3 x 4.7 x 0.98	SMA		EAR99
PE15A5072 	Power, High Rel	8 - 12	46	2				46		28 / 9,000	6.3 x 4.7 x 0.86	SMA		EAR99
PE15A4063F 	Power, High Rel	8 - 12.4	30	1.75	6	27	0.5			12 / 1,380	2.52 x 5.1 x 2.36	SMA		EAR99
PE15A4063 	Power, High Rel	8 - 12.4	30	1.75	6	27	0.5			12 / 800	1.53 x 0.93 x 0.35	SMA	*2	EAR99
PE15A5044 	Power, High Rel	8.5 - 10.5	36	1.5		38.5	7.1		47	12 / 4,000	2.36 x 2.91 x 0.63	SMA		EAR99
PE15A4006 	Power, High Rel	8.5 - 11	30	0.5	3	30	1		38	15 / 900	2.1 x 1.15 x 0.42	SMA	*3	EAR99
PE15A4007 	Power, High Rel	8.5 - 11	30	0.75	5	36	4		45	12 / 4,500	3.87 x 3.64 x 0.67	SMA	*3	EAR99
PE15A5043 	Power, High Rel	8.5 - 11	30	0.75	5	38.5	7.1		46	12 / 7,500	3.87 x 3.64 x 0.67	SMA	*3	EAR99

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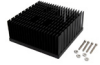
*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

High Rel Amplifiers Continued

PE P/N	Amplifier Type	Frequency Band (GHz)	Gain (dB)	Gain Variation +/- (dB)	NF (dB)	P1dB (dBm)	P1dB (Watts)	Psat (dBm)	IP3 (dBm)	DC Power (Volts/mA)	Mechanical Dimensions L(in) x W(in) x H(in)	Connector Type	MIL Specs	ECCN
PE15A5021 	Power, High Rel	14.4 - 15.4	43	0.5		34.8	3.02		41	15 / 1,500	3.25 x 2.25 x 0.5	SMA	*1	EAR99
PE15A4064 	Power, High Rel	18 - 26.5	28	2.5	7	27	0.5			12 / 1,150	1.08 x 1.48 x 0.35	SMA	*2	EAR99
PE15A4064F 	Power, High Rel	18 - 26.5	28	2.5	7	27	0.5			12 / 1,730	2.52 x 5.1 x 2.36	SMA		EAR99
PE15A5054 	Power, High Rel	18 - 26.5	35	3		33	2		40	12 / 3,500	2.63 x 2.8 x 0.85	SMA	*2	EAR99
PE15A5054F 	Power, High Rel	18 - 26.5	35	3		33	2		40	12 / 4,660	5.51 x 5.1 x 2.36	SMA		EAR99
PE15A4065 	Power, High Rel	18 - 40	35	4	9	23	0.2			12 / 1,000	1.05 x 1.48 x 0.35	2.92mm	*2	EAR99
PE15A4065F 	Power, High Rel	18 - 40	35	4	9	23	0.2			12 / 1,580	2.52 x 5.1 x 2.36	2.92mm		EAR99
PE15A4067 	Power, High Rel	26.5 - 40	35	4	10			27		12 / 3,000	2.22 x 1.7 x 0.6	2.92mm	*2	EAR99
PE15A4067F 	Power, High Rel	26.5 - 40	35	4	10			27		12 / 3,160	5.51 x 5.1 x 2.36	2.92mm		EAR99
PE15A4069 	Power, High Rel	30 - 40	20	2				20		12 / 350	0.83 x 1.48 x 0.35	2.92mm	*2	EAR99
PE15A4069F 	Power, High Rel	30 - 40	20	2				20		12 / 930	2.52 x 5.1 x 2.36	2.92mm		EAR99
PE15A7000 	Variable Gain, High Rel	100 MHz - 18	50	2		14	0.025				19 x 10.79 x 1.73	SMA	*2	EAR99

Notes: *1= Designed to meet test conditions for MIL-STD-810; *2= Designed to meet test conditions for MIL-STD-202;
*3= Designed to meet and environmentally screened to MIL-STD-202 test conditions; *4 = Designed to meet test conditions for MIL-STD-883

Amplifier Accessories

PE P/N	Description
PE15C5013 	Heat Sink for Most RF Power Amplifier PE15A5000 Series
PE15C5022 	Heat Sink for Rf Power Amplifier PE15A5022
PE15C5013F 	Heat Sink with 12V Fan for Most RF Power Amplifier PE15A5000 Series
PE15C5022F 	Heat Sink with 24V Fan for RF Power Amplifier PE15A5022
PE15A5990 	Heat Sink with Fan for RF Power Amplifier PE15A5024, PE15A5025 and PE15A5027
PE15C5014 	Heatsink for amplifier models PE15A4011-4015 and PE15A5004-5009
PE15G5060F 	Heatsink for amplifier models PE15A5055-5059, PE15A5064-5065, PE15A5068 and PE15A5070
PE15G5068F 	Heatsink for amplifier models PE15A5060-5063, PE15A5066-5067, PE15A5069, PE15A5071-5072
PE15J5011 	Power and Control Cable for RF Amplifier PE15A5011, PE15A5014, PE15A5016, PE15A5017, PE15A5018, PE15A5019, PE15A5020 and PE15A5022
PE15J5015 	Power and Control Cable for RF Amplifier PE15A5015, PE15A5023
PE15K5000 	Power and Control Cable for RF Amplifier PE15B5000 and PE15B5001
PE15K5002 	Power and Control Cable for RF Amplifier PE15B5002
PE15J000 	Power and Control Cable for RF Bi-Directional Amplifier PE15B5003

Waveguides

Waveguide Power Amplifiers

PE P/N	Waveguide Type	RF Frequency Range (GHz)	Minimum Gain (dB)	Saturated Output Power (dBm)	Flange Type	ECCN
PE15A4023 	WR-12	70.5 - 76.5	25	20	Round Cover UG-387/U	EAR99
PE15A4024 	WR-12	80.5 - 86.5	20	19	Round Cover UG-387/U	EAR99

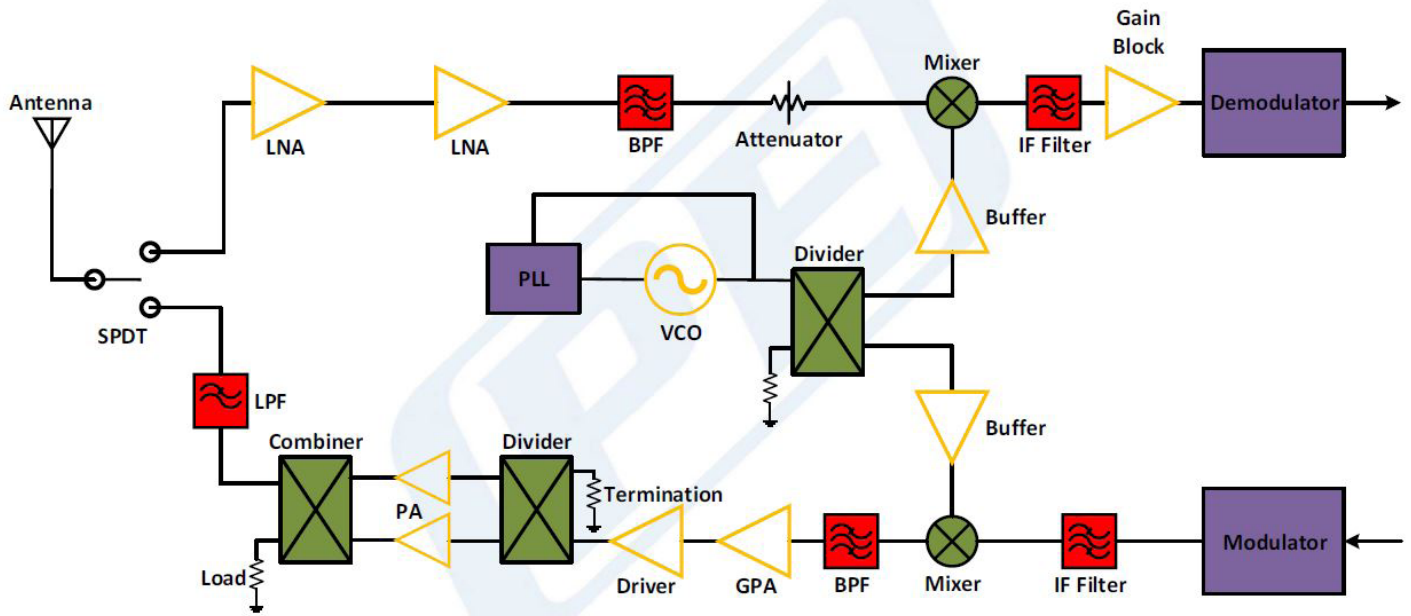
Waveguide Low Noise Amplifiers

PE P/N	Waveguide Type	RF Frequency Range (GHz)	Typical Gain (dB)	Typical Gain Flatness (dB)	Noise Figure (dB)	P1dB (Watts)	Max DC Voltage (Volts)	Typ DC Current (mA)	Flange Type	ECCN
PEWGA3206 	WR-10	75 - 110	25		5.5		8	180	UG-387/U-Mod	3A001.b.4.e.3
PEWGA3205 	WR-12	60 - 90	30		4.5	8	8	225	UG-387/U	EAR99
PEWGA3204 	WR-15	50 - 75	30		5		8	175	UG-385/U	EAR99
PEWGA3203 	WR-19	40 - 60	30		4.5	15	8	350	UG-383/U-Mod	EAR99
PEWGA3202 	WR-22	33 - 50	30		5.5	10	8	300	UG-383/U	EAR99
PEWGA3208 	WR-28	26.5 - 40	22	0.75	3	13.5	15	125	UG-599/U	EAR99
PEWGA3201 	WR-28	26.5 - 40	30		3		8	375	UG-599/U	EAR99

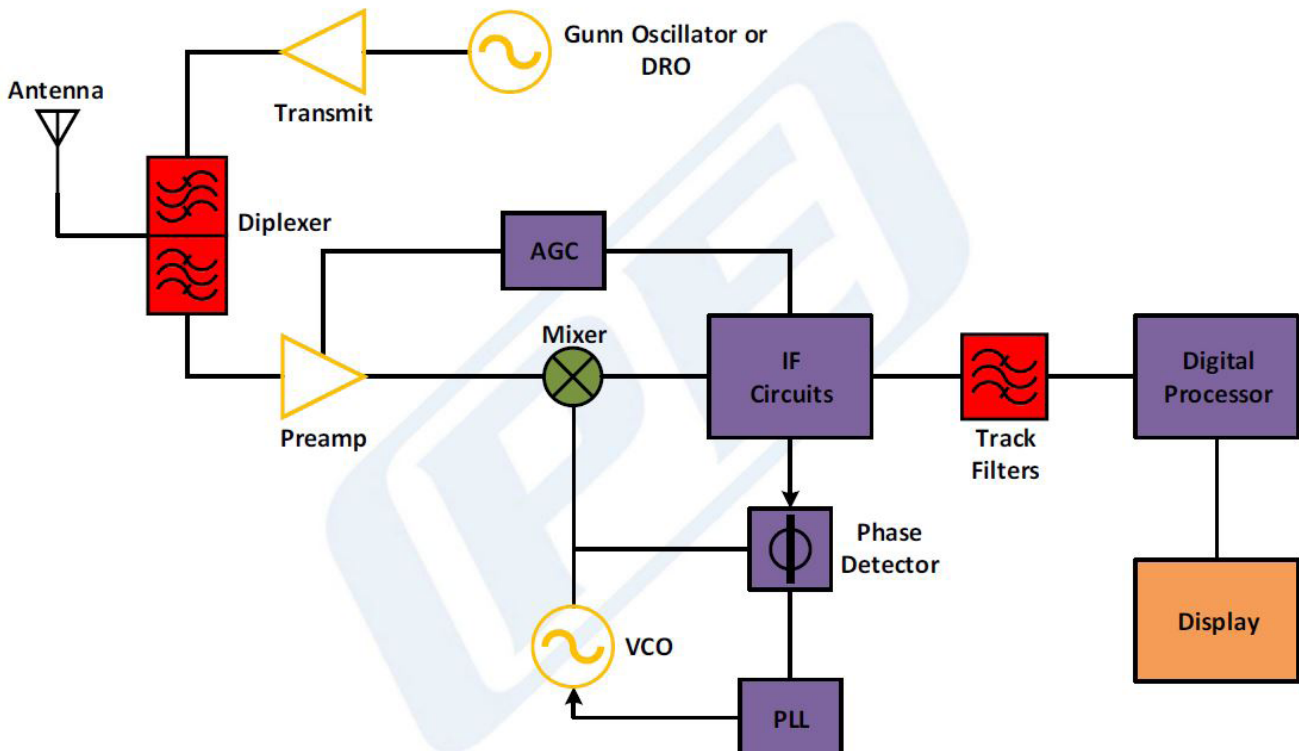
Recommended Amplifier Power-Up Precautions

1. Confirm that proper ESD precautions and controls are always in place before handling any Amplifier module
2. Confirm adequate thermal management is in place to effectively dissipate heat away from the Amplifier package. The Amplifier operational baseplate temperature must be within the operational temperature range stated in the Amplifier datasheet. Depending on the design and thermal requirements, using a heatsink with cooling fan is always recommended for safe reliable operation. A heat sink without a cooling fan may also be used. Damage caused from overheating will void the warranty.
3. Confirm adequate system grounding is established. The DC power supply and Amplifier must have a common ground in order to operate properly.
4. Power Amplifiers may require additional DC Current when initially powered-up. Depending on the design, the input current draw could range from an additional 10% to 100% above the maximum rated DC current of the Amplifier. This varies based on product part number.
5. Confirm the DC power supply, if limited, is set to allow for additional start-up current that's rated for the Power Amplifier.
6. Confirm the system is designed and calibrated for 50 ohms. Any impedance mismatch may cause performance issues.
7. Perform a CALIBRATION (if required) with the loads before connecting the Amplifier to the Network Analyzer to ensure proper performance.
8. Use a fixed attenuator between the signal source and input port of the Amplifier to optimize the input VSWR match.
9. Confirm the input power level at the input port of the amplifier does not exceed the maximum rated limit for input power (as stated in the Amplifier datasheet).
 P_{in} for Small Signal Gain = $P_{1dB-SSG} - 10 \text{ dB}$
 P_{in} for P_{1dB} = $P_{1dB-SSG} + 1 \text{ dB}$
10. Confirm the Network Analyzer is always connected to the Amplifier first before DC power is applied to the Amplifier.
11. As long as the input and output ports of the amplifier are connected to a 50Ohm load and RF signal power is applied, the Amplifier can be powered up with DC voltage.
12. Confirm the Amplifier output load is matched for a 50 ohm impedance and will not exceed the maximum rated VSWR or Return Loss limit for the Amplifier. Exceeding the maximum rated VSWR or Return Loss limit will result in reflected signal power that could damage the Amplifier and void the warranty.
13. **Power Amplifier connected to an Antenna for signal transmission** - It's strongly recommended to use a high power fixed attenuator pad or an Isolator between the output port of the Amplifier and input port to the antenna. Any reflected signal power due to impedance mismatch will likely damage the Amplifier and void the warranty.
14. The attenuator or isolator used at the output port of the Amplifier must be rated to handle the output power level and operational frequency band of the amplifier.

RF Transceiver



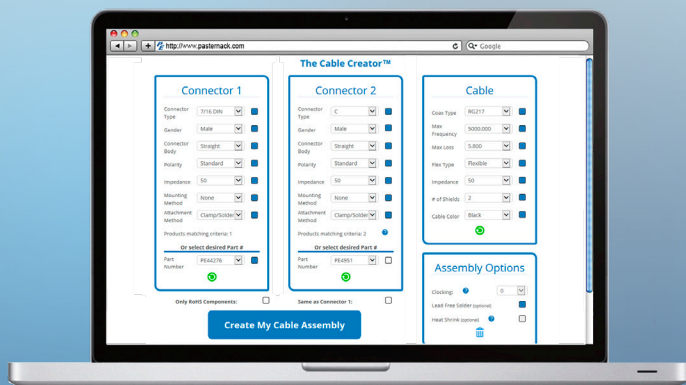
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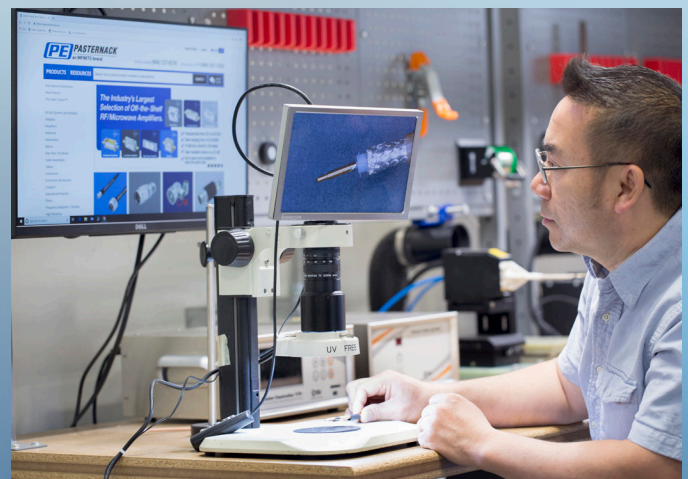
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