

FEATURES

- Wide Bandwidth
- Low Power Consumption
- Low Noise Figure
- Miniature Sizes, Field Removable connector
- Compact/Rugged Thin-Film Construction



APPLICATIONS

- Microwave Radio & VSAT
- Military & Space
- Test Instrumentation
- Fiber Optics

SPECIFICATIONS@25°C:

Part Number	Frequency Range (GHz)	Gain (dB.Min)	SS Flatness (±dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL001015G3025	0.01-1.5	30	2.5	2.5	5	1.7:1	180	DH14
MNL002020G5535	0.02-2	55	3.5	3.5	15	1.8:1	220	DH13
MNL005007G4014	0.5-0.7	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL005007G4009	0.5-0.7	40	0.75	0.9	12	2:1	200	BH2/BH3
MNL005007G3014	0.5-0.7	30	0.5	1.4	12	2:1	100	BH2/BH3
MNL005007G3009	0.5-0.7	30	0.5	0.9	12	2:1	100	BH2/BH3
MNL006008G4014	0.6-0.8	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL006008G4009	0.6-0.8	40	0.75	0.9	12	2:1	200	BH2/BH3
MNL006008G3014	0.6-0.8	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL006008G3009	0.6-0.8	30	0.5	0.9	10	2:1	150	BH2
MNL007009G4014	0.7-0.9	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL007009G4009	0.7-0.9	40	0.75	0.9	12	2:1	150	BH2/BH3
MNL007009G3014	0.7-0.9	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL007009G3009	0.7-0.9	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL007009G3008	0.7-0.9	30	0.5	0.8	12	2:1	175	BH2/BH3
MNL008010G3009	0.8-1.0	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL009011G4014	0.9-1.1	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL009011G4009	0.9-1.1	40	0.75	0.9	12	2:1	200	BH2/BH3
MNL009011G3014	0.9-1.1	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL009011G3009	0.9-1.1	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL009012G2808	0.9-1.2	28	0.5	0.8	10	1.8:1	90	BH19-2
MNL009014G3007	0.95-1.45	30	0.5	0.7	10	1.5:1	250	BH2/BH3
MNL009014G4007	0.95-1.45	40	0.75	0.7	10	1.5:1	250	BH3



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MNL009013G3008	0.96-1.3	30	0.3	0.8	10	1.5:1	+5V/100	BH2/BH3
MNL010012G4014	1.0-1.2	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL010012G4009	1.0-1.2	40	0.75	0.9	12	2:1	200	BH2/BH3
MNL010012G3014	1.0-1.2	30	0.5	1.4	12	2:1	200	BH2/BH3
MNL010012G3009	1.0-1.2	30	0.5	0.9	12	2:1	200	BH2/BH3
MNL017022G3010	1-2.2	30	1.5	1	6	2:1	100	BH2
MNL011013G4009	1.1-1.3	40	0.75	0.9	12	2:1	150	BH2/BH3
MNL011013G4014	1.1-1.3	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL011013G3014	1.1-1.3	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL012014G4014	1.2-1.4	40	0.75	1.4	12	2:1	150	BH2/BH3
MNL012014G4009	1.2-1.4	40	0.75	0.9	12	2:1	150	BH2/BH3
MNL012014G3014	1.2-1.4	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL012014G3009	1.2-1.4	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL012014G3305	1.2-1.4	33	0.3	0.5	10	1.5:1	+5V/130	BH2/BH3
MNL012014G3005	1.2-1.4	30	0.3	0.5	10	1.5:1	+5V/130	BH2/BH3
MNL013015G4014	1.3-1.5	40	0.75	1.4	12	2:1	200	BH2/BH3
MNL013015G4009	1.3-1.5	40	0.75	0.9	12	2:1	200	BH2/BH3
MNL013015G3014	1.3-1.5	30	0.5	1.4	12	2:1	250	BH2/BH3
MNL013015G3009	1.3-1.5	30	0.5	0.9	12	2:1	250	BH2/BH3
MNL014016G4014	1.4-1.6	40	0.75	1.4	12	2:1	250	BH2/BH3
MNL014016G4009	1.4-1.6	40	0.75	0.9	12	2:1	250	BH2/BH3
MNL014016G3014	1.4-1.6	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL014016G3007	1.4-1.6	30	0.5	0.7(Typ)	10	2:1	150	BH2
MNL014016G3009	1.4-1.6	30	0.5	0.9	10	2:1	150	BH2
MNL014024G2808	1.4-2.4	28	1	0.8	10	2:1	120	BH2
MNL014018G6008	1.45-1.8	60	1.5	0.8	13	2:1	400	DH6
MNL015017G4014	1.5-1.7	40	0.75	1.4	12	2:1	250	BH2/BH3
MNL015017G4009	1.5-1.7	40	0.75	0.9	12	2:1	250	BH2/BH3
MNL015017G3014	1.5-1.7	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL015017G3009	1.5-1.7	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL015017G3007	1.5-1.7	30	0.5	0.7	12	2:1	150	BH2/BH3
MNL015015G3416	1.506-1.526	34	0.2	1.6	10	2:1	220	BH3
MNL015015G5008	1.54-1.55	50	[0.5]	0.8	10	1.4:1	200	BH4
MNL015015G3316	1.56-1.58	34	0.2	1.6	10	2:1	220	BH2/BH3



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MNL016018G4014	1.6-1.8	40	0.75	1.4	12	2:1	150	BH2/BH3
MNL016018G4019	1.6-1.8	40	0.5	1.9	12	2:1	150	BH2/BH3
MNL016018G4007	1.6-1.8	40	0.5	0.7	13	1.8:1	180	BH2/BH3
MNL016018G3014	1.6-1.8	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL016018G3009	1.6-1.8	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL016018G3007	1.6-1.8	30	0.5	0.7	12	2:1	150	BH2/BH3
MNL016035G3013	1.6-3.5	30	1	1.3	10	2:1	100	BH2
MNL017019G4014	1.7-1.9	40	0.75	1.4	12	2:1	250	BH2/BH3
MNL017019G4009	1.7-1.9	40	0.75	0.9	12	2:1	250	BH2/BH3
MNL017019G3014	1.7-1.9	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL017019G3009	1.7-1.9	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL017019G3006	1.7-1.9	30	0.5	0.6	12	2:1	150	BH2/BH3
MNL017021G3510	1.7-2.1	35	1.5	1	10	2:1	5V/100mA	BH2
MNL017021G3810	1.7-2.1	38 \pm 2	1	1	10	1:1.8	170	BH3
MNL018020G4014	1.8-2.0	40	0.75	1.4	12	2:1	250	BH2/BH3
MNL018020G4009	1.8-2.0	40	0.75	0.9	12	2:1	250	BH2/BH3
MNL018020G3014	1.8-2.0	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL018020G3009	1.8-2.0	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL018020G3006	1.8-2.0	30	0.5	0.6	12	2:1	150	BH2/BH3
MNL019021G4014	1.9-2.1	40	0.75	1.4	12	2:1	250	BH2/BH3
MNL019021G4009	1.9-2.1	40	0.75	0.9	12	2:1	250	BH2/BH3
MNL019021G3014	1.9-2.1	30	0.5	1.4	12	2:1	150	BH2/BH3
MNL019021G3009	1.9-2.1	30	0.5	0.9	12	2:1	150	BH2/BH3
MNL019021G3006	1.9-2.1	30	0.5	0.6	12	2:1	150	BH2/BH3
MNL019024G3009	1.9-2.4	30	0.5	0.9	12	2:1	150	BH2
MNL020022G4015	2.0-2.2	40	0.75	1.5	12	2:1	250	BH2/BH3
MNL020022G4010	2.0-2.2	40	0.75	1	12	2:1	250	BH2/BH3
MNL020022G3015	2.0-2.2	30	0.5	1.5	12	2:1	200	BH2/BH3
MNL020022G3010	2.0-2.2	30	0.5	1	12	2:1	220	BH2/BH3
MNL020022G3007	2.0-2.2	30	0.5	0.7	12	2:1	250	BH2/BH3
MNL020023G5010	2-2.3	50	1	1	10	1.8:1	180	BH4
MNL020027G3030	2.0-2.7	30	1.5	3	10	2:1	150	BH2
MNL020027G3010	2-2.7	30	1.5	1	10	2:1	150	BH2



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MNL020030G4001	2-3	40	1	100K	10	1.5:1	80	BH3
MNL021023G4010	2.1-2.3	40	0.75	1	12	2:1	250	BH2/BH3
MNL021023G3022	2.1-2.3	30	0.8	2.2	10	1.8:1	+5V/130	BH2/BH3
MNL021023G3015	2.1-2.3	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL021023G3010	2.1-2.3	30	0.5	1	12	2:1	150	BH2/BH3
MNL021023G3007	2.1-2.3	30	0.5	0.7	12	2:1	150	BH3
MNL021023G4515	2.1-2.3	45	0.75	1.5	12	2:1	5V/250mA	BH4
MNL021025G5007	2.1-2.5	50	0.5	0.7	12	2:1	260	BH2/BH3
MNL021029G4501	2.1-2.9	45	0.5	100K	10	2:1	150	BH4
MNL021026G5015	2.17-2.65	50	1.5	1.5	10	2:1	400	BH2/BH3
MNL021026G5315	2.17-2.65	53	1.5	1.5	10	2:1	400	BH2/BH3
MNL022023G3008	2.2-2.3	30	0.5	0.8	10	1.8:1	5V/150	BH2
MNL022023N3008	2.2-2.3	30	0.5	0.8	10	1.8:1	5V/150	BH54
MNL022023G4508	2.2-2.3	45	0.5	0.8	5	1.5:1	220	BH2/BH3
MNL022023G4507	2.2-2.3	45	0.5	0.75	5	1.3:1	150	BH3
MNL022023G4506	2.2-2.3	45	0.5	0.6	5	1.3:1	280	BH2/BH3
MNL022024G4015	2.2-2.4	40	0.75	1.5	12	2:1	150	BH2/BH3
MNL022024G4010	2.2-2.4	40	0.75	1	12	2:1	150	BH2/BH3
MNL022024G3015	2.2-2.4	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL022024G3010	2.2-2.4	30	0.5	1	12	2:1	150	BH2/BH3
MNL022024G3008	2.2-2.4	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL022029G4512	2.2-2.9	45	1.5	1.29	5	1.4:1	150	BH3
MNL022026G3308	2.2-2.6	33	0.4	0.8	10	1.6:1	+5V/130	BH2/BH3
MNL022026G3008	2.2-2.6	30	0.4	0.8	10	1.6:1	+5V/130	BH2/BH3
MNL022029G3001	2.2-2.9	30	0.5	100(K)	10	1.3:1	150	BH3
MNL023025G4015	2.3-2.5	40	0.75	1.5	12	2:1	150	BH2/BH3
MNL023025G4010	2.3-2.5	40	0.75	1	12	2:1	150	BH2/BH3
MNL023025G3015	2.3-2.5	30	0.5	1.5	12	2:1	120	BH2/BH3
MNL023025G3010	2.3-2.5	30	0.5	1	12	2:1	120	BH2/BH3
MNL023025G3008	2.3-2.5	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL023027G2608	2.3-2.7	26	0.5	0.8	5	1.5:1	120	BH2/BH3
MNL023027G5010	2.3-2.7	50	0.5	1	5	1.5:1	90	BH4
MNL023029G4508	2.3-2.9	45	0.5	0.8	5	1.5:1	200	BH2/BH3



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MNL024026G4015	2.4-2.6	40	0.75	1.5	12	2:1	200	BH2/BH3
MNL024026G4010	2.4-2.6	40	0.75	1	12	2:1	200	BH2/BH3
MNL024026G3015	2.4-2.6	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL024026G3010	2.4-2.6	30	0.5	1	12	2:1	150	BH2/BH3
MNL024026G3008	2.4-2.6	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL025027G4015	2.5-2.7	40	0.75	1.5	12	2:1	250	BH2/BH3
MNL025027G4010	2.5-2.7	40	0.75	1	12	2:1	250	BH2/BH3
MNL025027G3025	2.5-2.7	30	0.8	2.5	10	1.8:1	130	BH2/BH3
MNL025027G3015	2.5-2.7	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL025027G3010	2.5-2.7	30	0.5	1	12	2:1	150	BH2/BH3
MNL025027G3008	2.5-2.7	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL025025G3009	2.56-2.59	30	/	0.9	5	16/1.9	180	BH20
MNL026028G4015	2.6-2.8	40	0.75	1.5	12	2:1	150	BH2/BH3
MNL026028G4010	2.6-2.8	40	0.75	1	12	2:1	150	BH2/BH3
MNL026028G3015	2.6-2.8	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL026028G3010	2.6-2.8	30	0.5	1	12	2:1	150	BH2/BH3
MNL026028G3008	2.6-2.8	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL027029G4015	2.7-2.9	40	0.75	1.5	12	2:1	250	BH2/BH3
MNL027029G4010	2.7-2.9	40	0.75	1	12	2:1	250	BH2/BH3
MNL027029G3015	2.7-2.9	30	0.5	1.5	12	2:1	150	BH2/BH3
MNL027029G3010	2.7-2.9	30	0.5	1	12	2:1	150	BH2/BH3
MNL027029G3008	2.7-2.9	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL027035G3308	2.7-3.5	33	0.5	0.8	10	1.5:1	150	BH2/BH3
MNL027035G3008	2.7-3.5	30	0.6	0.8	10	1.5:1	150	BH2/BH3
MNL028030G4016	2.8-3.0	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL028030G4011	2.8-3.0	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL028030G3016	2.8-3.0	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL028030G3011	2.8-3.0	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL028030G3008	2.8-3.0	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL029031G4208	2.9-3.1	42	1.5	0.8	10	2:1	150	BH2/BH3
MNL029031G4016	2.9-3.1	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL029031G4011	2.9-3.1	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL029031G3016	2.9-3.1	30	0.5	1.6	12	2:1	150	BH2/BH3



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MNL029031G3011	2.9-3.1	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL029031G3008	2.9-3.1	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL030032G4016	3.0-3.2	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL030032G4011	3.0-3.2	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL030032G3016	3.0-3.2	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL030032G3011	3.0-3.2	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL030032G3008	3.0-3.2	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL031033G4016	3.1-3.3	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL031033G4011	3.1-3.3	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL031033G3016	3.1-3.3	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL031033G3011	3.1-3.3	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL031033G3008	3.1-3.3	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL031035G3208	3.1-3.5	32	0.5	0.8	10	1.5:1	180	BH3
MNL032034G4016	3.2-3.4	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL032034G4011	3.2-3.4	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL032034G3016	3.2-3.4	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL032034G3011	3.2-3.4	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL032034G3008	3.2-3.4	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL033035G4016	3.3-3.5	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL033035G4011	3.3-3.5	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL033035G3016	3.3-3.5	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL033035G3011	3.3-3.5	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL033035G3008	3.3-3.5	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL034036G4016	3.4-3.6	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL034036G4011	3.4-3.6	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL034036G3016	3.4-3.6	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL034036G3008	3.4-3.6	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL034036G3011	3.4-3.6	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL034042G1518	3.4-4.2	15-16	0.4	1.8	16	1.4:1.5	150	BH2/BH3
MNL034042G2810	3.4-4.2	28	0.75	1	15	2:1	200	BH2/BH3
MNL034042G2013	3.4-4.2	20	0.4	1.3	12	1.4:1.6	150	BH2/BH3
MNL034042G2010	3.4-4.2	20	0.75	1	12	1.75:1	200	BH2/BH3
MNL034042G2710	3.4-4.2	27-29	1	1	12	2:1	200	BH2/BH3



NARROW BAND LOW NOISE AMPLIFIER

Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (\pm dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL034042N6014	3.4-4.2	60	1.25	1.4	11(Typ)	1.7/1.5	170	BH16
MNL034048G1518	3.4-4.8	15-16	0.4	1.8	15	1.6:1.5	150	BH2
MNL034048G3018	3.4-4.8	30	0.4	1.8	15	1.6:1.5	150	BH2
MNL034048N3030	3.4-4.8	30	1.5	3	10	2:1	150	BH2/BH3
MNL035037G4016	3.5-3.7	40	0.75	1.6	12	2:1	150	BH43
MNL035037G4011	3.5-3.7	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL035037G3016	3.5-3.7	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL035037G3011	3.5-3.7	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL035037G3008	3.5-3.7	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL036038G4016	3.6-3.8	40	0.75	1.6	12	2:1	150	BH2/BH3
MNL036038G4011	3.6-3.8	40	0.75	1.1	12	2:1	150	BH2/BH3
MNL036038G3016	3.6-3.8	30	0.5	1.6	12	2:1	150	BH2/BH3
MNL036038G3011	3.6-3.8	30	0.5	1.1	12	2:1	150	BH2/BH3
MNL036038G3008	3.6-3.8	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL037042G4017	3.7-4.2	40	0.75	1.7	12	2:1	150	BH2/BH3
MNL037042G4012	3.7-4.2	40	0.5	1.2	12	2:1	150	BH2/BH3
MNL037042G3017	3.7-4.2	30	0.5	1.7	12	2:1	150	BH2/BH3
MNL037042G3012	3.7-4.2	30	0.5	1.2	12	2:1	150	BH2/BH3
MNL037042G3008	3.7-4.2	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL040045G2010	4.0-4.5	20	0.5	1	10	2:1	100	BH2
MNL040045G2016	4.0-4.5	20	0.5	1.6	10	2:1	100	BH2
MML040050G2010	4.0-5.0	20	0.5	1	10	2:1	100	BH2
MNL040050G2016	4.0-5.0	20	0.5	1.6	10	2:1	100	BH2
MNL042044G3015	4.2-4.4	30	1	1.5	10	1:2	5V/100mA	BH42
MNL043048G3807	4.3-4.8	38	/	0.7(Typ)	10	1.5:1	200	BH3
MNL044050G4017	4.4-5.0	40	0.75	1.7	12	2:1	150	BH2/BH3
MNL044050G4012	4.4-5.0	40	0.75	1.2	12	2:1	150	BH2/BH3
MNL044050G3017	4.4-5.0	30	0.5	1.7	12	2:1	150	BH2/BH3
MNL044050G3012	4.4-5.0	30	0.5	1.2	12	2:1	150	BH2/BH3
MNL044050G3008	4.4-5.0	30	0.5	0.8	12	2:1	150	BH2/BH3
MNL044051G4611	4.4-5.1	46	1	1.1	12	2:1	225	BH2/BH3
MNL044058G3030	4.4-5.85	30	1.5	3	10	2:1	100	BH4
MNL045050G4010	4.5-5	40	1.5(Typ)	1	10	2:1	200	BH67



NARROW BAND LOW NOISE AMPLIFIER

Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (\pm dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL048053G3307	4.8-5.3	33	0.5	0.7	10	1.5:1	250	BH2/BH3
MNL048053G3407	4.85-5.35	34	0.5	0.7	10	1.5:1	250	BH2/BH3
MNL048053G3007	4.85-5.35	30	0.5	0.7	10	1.5:1	250	BH2/BH3
MNL050054G2430	5-5.4	24-25	0.5	3	15	2:1	150	BH2/BH3
MNL050073G3212	5-7.3	32	1.5	1.2	10	2:1	120	BH2/BH3
MNL052059G3511	5.2-5.9	35	0.5	1.1	10	1.5:1	+5V/150	BH2/BH3
MNL052059G3111	5.2-5.9	31	0.5	1.1	10	1.5:1	+5V/150	BH2/BH3
MNL052059G3011	5.2-5.9	30	0.5	1.1	10	1.5:1	+5V/150	BH2/BH3
MNL052060G2810	5.2-6	28	/	1	10	2:1	120	BH2
MNL052060G3007	5.2-6	30	/	0.7	10	2:1	120	BH2
MNL052060G3807	5.2-6	38	/	0.7	10	2:1	120	BH3
MNL052060G3811	5.2-6	38	/	1.1	10	2:1	120	BH3
MNL054059G2506	5.4-5.9	25(Typ)	/	0.8	10(Typ)	2:1	125	BH70
MNL054059G4017	5.4-5.9	40	0.75	1.7	12	2:1	150	BH2/BH3
MNL054059G4012	5.4-5.9	40	0.75	1.2	12	2:1	150	BH2/BH3
MNL054059G3017	5.4-5.9	30	0.5	1.7	12	2:1	150	BH2/BH3
MNL054059G3015L01	5.4-5.9	30	0.5	1.5	15	1.5:1	200	BH3
MNL054059G3012	5.4-5.9	30	1	1.2	10	2:1	120	BH2/BH3
MNL054059G3012D	5.4-5.9	30	0.75	1.2	12	1.5:1	150	BH2/BH3
MNL054059G4512	5.4-5.9	45	0.75	1.2	15	2:1	150	BH4
MNL054059G4515	5.4-5.9	45 Typ	1 Typ	1.5	15 Typ	2:1	450	BH4
MNL057069G2345L02	5.7-6.9	23-35	0.5	4.5	10	1.5:1	120	BH2/BH3
MNL058065G2112	5.85-6.57	21	0.5	1.2	10	2:1	100	BH2
MNL058065G2115	5.85-6.57	21	0.5	1.5	10	1.2/1.3	100	DH4
MNL059064G4018	5.9-6.4	40	0.75	1.8	12	2:1	150	BH2/BH3
MNL059064G4013	5.9-6.4	40	0.75	1.3	12	2:1	150	BH2/BH3
MNL059064G3018	5.9-6.4	30	0.5	1.8	12	2:1	150	BH2/BH3
MNL059064G3013	5.9-6.4	30	0.5	1.3	12	2:01	150	BH2/BH3
MNL059064G3013D	5.9-6.4	30	0.75	1.3	12	2:01	150	BH2/BH3
MNL064072G2112	6.4-7.2	21	0.5	1.2	10	2:01	100	BH2
MNL064072G2115	6.4-7.2	21	0.5	1.5	10	1.2:1.3	100	DH4
MNL064072G4018	6.4-7.2	40	0.75	1.8	12	2:01	150	BH2/BH3
MNL064072G4013	6.4-7.2	40	0.75	1.3	12	2:01	150	BH2/BH3
MNL064072G3018	6.4-7.2	30	0.5	1.8	12	2:01	150	BH2/BH3



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Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (\pm dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL064072G3013	6.4-7.2	30	0.75	1.3	12	2:01	150	BH2/BH3
MNL064072G3010	6.4-7.2	30	0.75	1	12	2:01	150	BH2/BH3
MNL068078G2309	6.8-7.8	23-28	1	0.9	8	2:01	150	BH14
MNL068078C2309	6.8-7.8	23-28	1	1.9	8	2:1	150	BH3
MNL070124G3450	7-12.4	34	1.5	5	10	2:01	300	BH2/BH3
MLN071084G2020	7.1-8.4	20	1	2	12	2:01	350	BH2
MNL072078G3818	7.2-7.8	38	0.75	1.8	12	2:01	150	BH2/BH3
MNL072078G3813	7.2-7.8	38	0.75	1.3	12	2:01	150	BH2/BH3
MNL072078G3311	7.2-7.8	33	0.5	1.1	10	1.8:1	+5V/150	BH2/BH3
MNL072078G3011	7.2-7.8	30	1	1.1	12	2:01	150	BH2/BH3
MNL072078G2818	7.2-7.8	28	0.5	1.8	12	2:01	150	BH2/BH3
MNL072078G2813	7.2-7.8	28	0.5	1.3	12	2:01	150	BH2/BH3
MNL072077G3010	7.25-7.75	30	0.5	1.0	10	1.5:1	250	BH2
MNL072077G2015	7.25-7.75	20~22	0.4	1.5	12	1.4:1.6	150	BH6
MNL076085G5012	7.6-8.5	50	1	1.2	12	2:01	350	BH6
MNL077085G5012	7.7-8.5	50	1	1.2	10	2:01	200	BH6
MNL076086G3012	7.6-8.6	30	1	1.2	12	2:1	200	BH2
MNL078084G2016	7.8-8.4	20	0.5	1.6	10	1.25:1	180	DH6
MNL079084G3819	7.9-8.4	38	0.75	1.9	12	2:01	150	BH2/BH3
MNL079084G3814	7.9-8.4	38	0.75	1.4	12	2:01	150	BH2/BH3
MNL079084G3011	7.9-8.4	30	0.75	1.1	12	2:01	150	BH2/BH3
MNL079084G2619	7.9-8.4	26	0.5	1.9	12	2:01	150	BH2/BH3
MNL079084G2614	7.9-8.4	26	0.5	1.4	12	2:01	150	BH2/BH3
MNL079085G3314	7.9-8.5	33	0.75	1.4	10	1.8:1	130	BH2/BH3
MNL079085G3013	7.9-8.5	30	0.5	1.3	10	1.5:1	80	BH3
MNL079085G4001	7.9-8.5	40	1	100(K)	10	1.5:1	80	BH3
MNL079085G5015	7.9-8.5	50	1	1.5	10	1.6:1	130	BH4
MNL079085G3050	7.95-8.55	30	0.5	5	15	2:01	300	BH2/BH3
MNL080085G6012	8-8.5	60	1.2	1.2	1.2	1.8	500	BH46
MNL084084G2870	8.4-8.45	28	0.5(Typ.)	70deg	10	2:1	200	BH2
MNL085096G2615	8.5-9.6	26	0.75	1.5	10	1.5:1	150	BH29
MNL085096G3614	8.5-9.6	36	0.75	1.4	12	2:01	150	BH2/BH3
MNL085096G3014	8.5-9.6	30	1	1.4	12	2:01	150	BH3



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Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (±dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL085096G3011	8.5-9.6	30	0.4	1.1	3	1.8:1	+5V/30	BH2/BH3
MNL085096G2519	8.5-9.6	25	0.5	1.9	12	2:01	150	BH2/BH3
MNL085096G2514	8.5-9.6	25	0.5	1.4	12	2:01	150	BH2/BH3
MNL086095G2015	8.6-9.5	20	0.5(Typ.)	1.5	5	1.4:1(Typ.)	4V/40mA	BH23
MNL086095G2412	8.6-9.5	24	0.5	1.2	5	1.6:1	4V/150mA	BH2
MNL086095G3516	8.6-9.5	35	0.5(Typ.)	1.6	15(Typ.)	1.4:1(Typ.)	5V/120mA	BH23
MNL090095G3919	9.0-9.5	39	0.75	1.9	12	2:01	150	BH4
MNL090095G3614	9.0-9.5	36	0.75	1.4	12	2:01	150	BH3
MNL090095G3011	9.0-9.5	30	0.75	1.1	12	2:01	150	BH2/BH3
MNL090095G2519	9.0-9.5	25	0.5	1.9	12	2:01	150	BH2
MNL090095G2514	9.0-9.5	25	0.5	1.4	12	2:01	150	BH2
MNL090095G3619	9.0-9.5	36	0.75	1.9	12	2:01	150	BH3
MNL091095G3213	9.1-9.5	32-35	0.5	1.3	10	2:01	150	BH4
MNL091095G4411	9.1-9.5	44-46	0.5	1.1	15	2:01	150	BH4
MNL091097G2915L01	9.1-9.7	29-35	/	1.5	10	1.5:1	100	BH49
MNL091105G3318	9.1-10.5	33	3	1.8	10	1.8:1	150	BH3
MNL093095G3025L01	9.3-9.5	30	1	2.5	16	1.5:1	+5V/200mA	BH3
MNL095105G1230	9.5-10.5	12	1	3	7	2:01	100	BH5
MNL095105G3619	9.5-10.5	36	0.75	1.9	12	2:01	225	BH2/BH3
MNL095105G3614	9.5-10.5	36	0.75	1.4	12	2:01	200	BH3
MNL095105G3011	9.5-10.5	30	1	1.1	12	2:01	175	BH2/BH3
MNL095105G2519	9.5-10.5	25	0.5	1.9	12	2:01	175	BH2/BH3
MNL095105G2514	9.5-10.5	25	0.5	1.4	12	2:01	150	BH2/BH3
MNL096105G3211	9.6-10.5	32	0.4	1.1	3	1.8:1	150	BH2/BH3
MNL096105G3011	9.6-10.5	30	0.4	1.1	3	1.8:1	150	BH3
MNL096105G3112	9.6-10.54	31	0.4	1.2	3	1.8:1	150	BH2/BH3
MNL096130G3015	9.6-13	30	0.3	1.5	10	1.5:1	100	BH2/BH3
MNL102107G2115	10.25-10.7	21	1	1.5	10	2:01	100	BH2
MNL102107G2120	10.25-10.7	21	1	2	10	1.2:1.3	100	DH4
MNL107117G2020	10.7-11.7	20	1	2	12	2:01	350	BH2
MNL107117G2415	10.7-11.7	24	0.5	1.5	12	2:01	175	BH2/BH3
MNL107117G2420	10.7-11.7	24	0.5	2	12	2:01	175	BH2/BH3
MNL107117G3012	10.7-11.7	30	1	1.2	12	2:01	175	BH2/BH3
MNL107117G3515	10.7-11.7	35	0.75	1.5	12	2:01	175	BH2/BH3



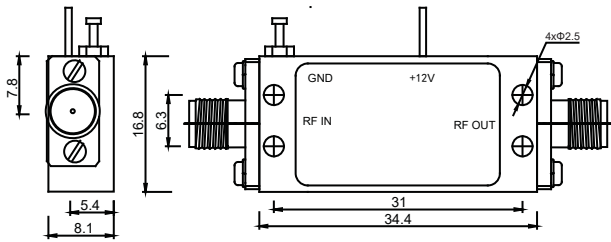
NARROW BAND LOW NOISE AMPLIFIER

Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (±dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL107117G3520	10.7-11.7	35	0.75	2	12	2:01	175	BH2/BH3
MNL107127G3020	10.7-12.75	30	0.75	2	12	1.6:1	100	BH2
MNL117122G2415	11.7-12.2	24	0.5	1.5	12	2:01	175	BH2/BH3
MNL117122G2420	11.7-12.2	24	0.5	2	15	2:01	175	BH2/BH3
MNL117122G3012	11.7-12.2	30	0.75	1.2	12	2:01	175	BH2/BH3
MNL117122G3515	11.7-12.2	35	0.75	1.5	12	2:01	225	BH2/BH3
MNL117122G3520	11.7-12.2	35	0.75	2	12	2:01	225	BH2/BH3
MNL122127G2416	12.2-12.7	24	0.5	1.6	12	2:01	175	BH2/BH3
MNL122127G2421	12.2-12.7	24	0.5	2.1	12	2:01	175	BH2/BH3
MNL122127G3013	12.2-12.7	30	0.75	1.3	12	2:01	175	BH2/BH3
MNL122127G3516	12.2-12.7	35	0.75	1.6	12	2:01	175	BH2/BH3
MNL122127G3521	12.2-12.7	35	0.75	2.1	12	2:01	175	BH2/BH3
MNL127132G2217	12.7-13.2	22	0.5	1.7	12	2:01	175	BH2/BH3
MNL127132G2222	12.7-13.2	22	0.5	2.2	12	2:01	175	BH2/BH3
MNL127132G3014	12.7-13.2	30	0.75	1.4	10	2:01	175	BH2
MNL1213G3014	12.7-13.2	30	0.75	1.4	10	2:1	175	BH2
MNL127132G3317	12.7-13.2	33	0.75	1.7	12	2:01	175	BH2/BH3
MNL127132G3322	12.7-13.2	33	0.75	2.2	12	2:01	175	BH2/BH3
MNL127132G2020	12.75-13.25	20	1	2	12	2:01	350	BH2
MNL132142G2118	13.2-14.2	21	0.5	1.8	12	2:01	175	BH2/BH3
MNL132142G2123	13.2-14.2	21	0.5	2.3	12	2:01	175	BH2/BH3
MNL132142G3015	13.2-14.2	30	0.75	1.5	12	2:01	175	BH2/BH3
MNL132142G3218	13.2-14.2	32	0.75	1.8	12	2:01	175	BH2/BH3
MNL132142G3223	13.2-14.2	32	0.75	2.3	12	2:01	175	BH2/BH3
MNL137145G1535	13.7-14.5	15	0.5	3.5	7	2:01	100	BH2
MNL140145G2119	14-14.5	21	0.5	1.9	12	2:01	175	BH2/BH3
MNL140145G2124	14-14.5	21	0.5	2.4	12	2:01	175	BH2/BH3
MNL140145G3015	14.0-14.5	30	0.75	1.5	12	2:01	175	BH2
MNL140145G3219	14.0-14.5	32	0.75	1.9	12	2:01	225	BH2/BH3
MNL140145G3224	14.0-14.5	32	0.75	2.4	12	2:01	225	BH2/BH3
MNL142153G2015	14.2-15.35	20	1.5	1.5	12	2:01	175	BH2
MNL145153G2019	14.5-15.3	20	0.5	1.9	12	2:01	175	BH2/BH3
MNL145153G2024	14.5-15.3	20	0.5	2.4	12	2:01	175	BH2/BH3
MNL145153G3016	14.5-15.3	30	0.75	1.6	12	2:01	175	BH2/BH3

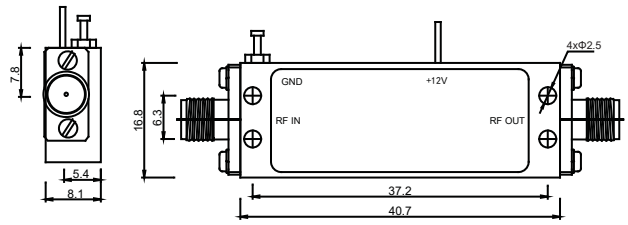


NARROW BAND LOW NOISE AMPLIFIER

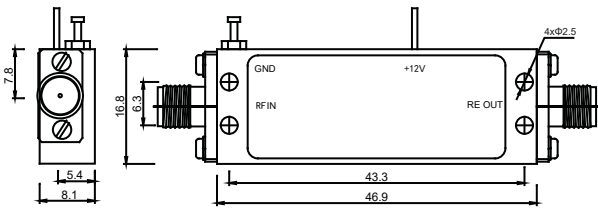
Part Number	Frequency Range (GHz)	Gain (dB.Min)	Flatness (\pm dB.Max.)	N.F (dB.Max)	P1dB (dBm.min)	VSWR Max	Current@ 12-15 VDC (mA. Typ)	Case Type
MNL145153G3019	14.5-15.3	30	0.75	1.9	12	2:01	225	BH2/BH3
MNL145153G3024	14.5-15.3	30	0.75	2.4	12	2:01	225	BH2/BH3
MNL150152G3416	15.006-15.256	34	0.2	1.6	10	2:01	120	BH2/BH3
MNL155165G2019	15.5-16.5	20	0.5	1.9	12	2:01	175	BH2/BH3
MNL155165G2024	15.5-16.5	20	0.5	2.4	12	2:01	175	BH2/BH3
MNL155165G3016	15.5-16.5	30	0.75	1.6	12	2:01	175	BH2/BH3
MNL155165G3019	15.5-16.5	30	0.75	1.9	12	2:01	175	BH2/BH3
MNL155165G3024	15.5-16.5	30	0.75	2.4	12	2:01	225	BH2/BH3
MNL159161G1750	15.9-16.1	17	0.25	5	17	1.5:1	200	BH2
MNL165175G2020	16.5-17.5	20	0.5	2	12	2:01	175	BH2/BH3
MNL165175G2025	16.5-17.5	20	0.5	2.5	12	2:01	175	BH2/BH3
MNL165175G3015	16.5-17	30	1	1.5	15	2:1	200	BH2
MNL165175G3019	6.5-17.5	30	0.75	1.9	12	2:01	225	BH2/BH3
MNL165175G3020	16.5-17.5	30	1	2	15	2:01	200	BH2
MNL165175G3025	16.5-17.5	30	0.75	2.5	12	2:01	225	BH2/BH3
MNL170180G2025	17-18	20	0.75	2.5	12	2:01	175	BH2/BH3
MNL170180G3020	17-18	30	1	2	12	2:01	225	BH2/BH3
MNL170180G3025	17-18	30	0.75	2.5	12	2:01	225	BH2/BH3
MNL177189G3025	17.7-18.9	30	1	2.5	10	2:01	180	BH2
MNL210230G3030	21-23	30	1.2	3	10	1.8:1	+5V/180	BH2/BH3
MNL250270G3035	25-27	30	1.2	3.5	10	2:01	+5V/180	BH2/BH3
MNL275285G2335	27.5-28.5	23	0.5(Typ.)	3.5	15	1.5:1(Typ.)	100	BH23



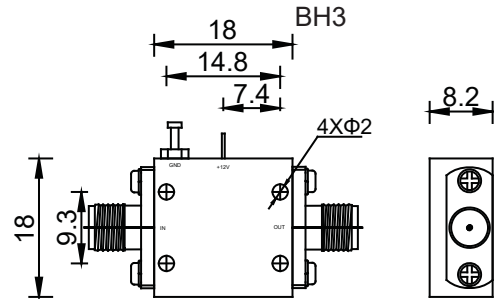
BH2



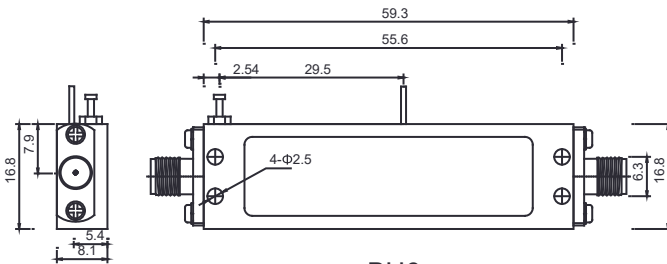
BH3



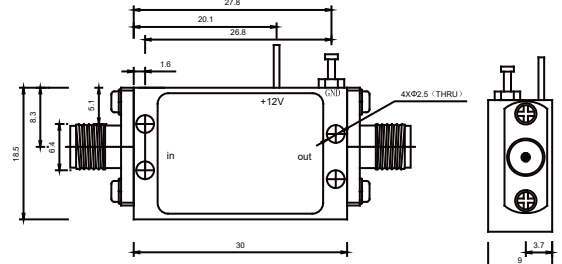
BH4



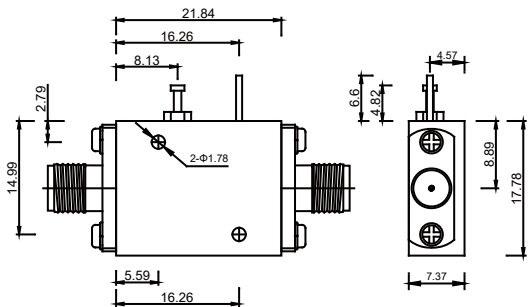
BH5



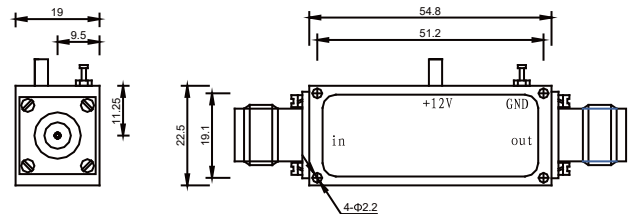
BH6



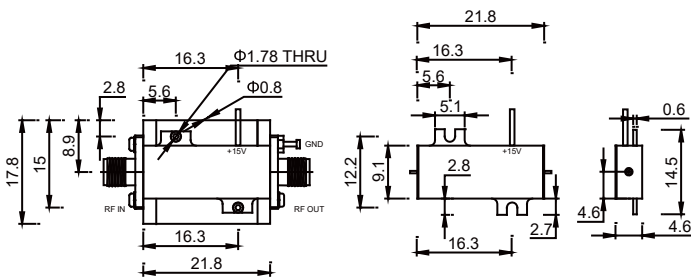
BH13



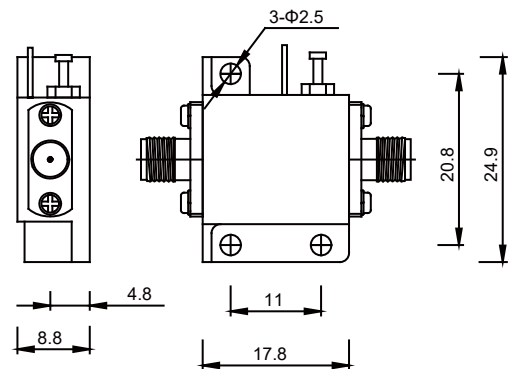
BH14



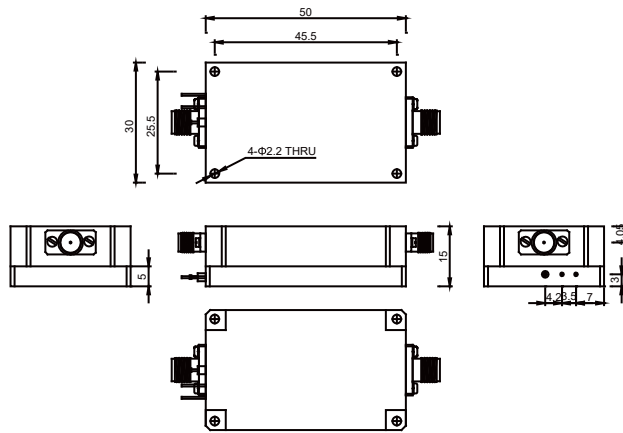
BH16



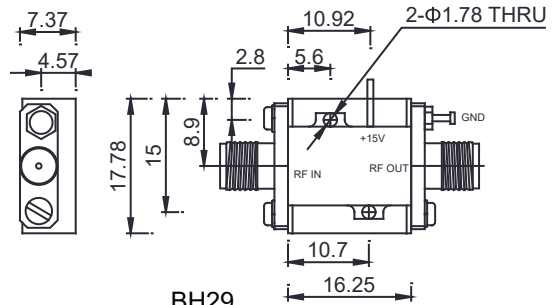
BH19-2



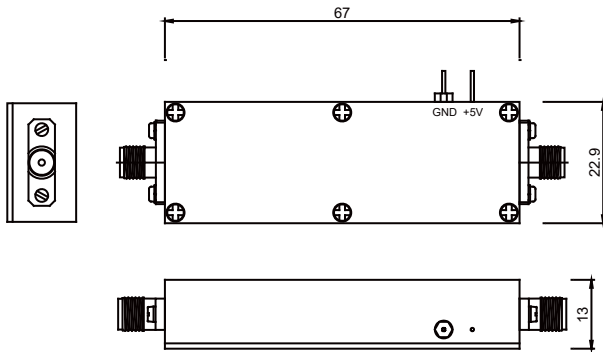
BH20



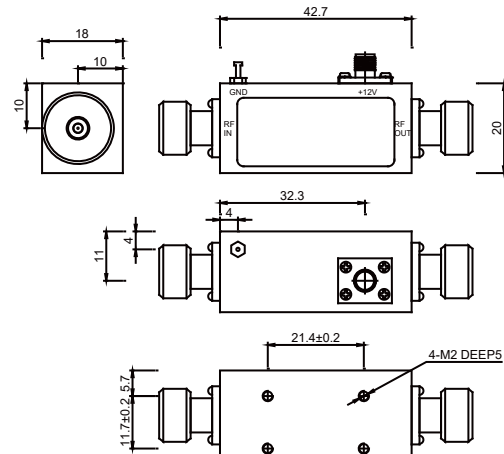
BH23



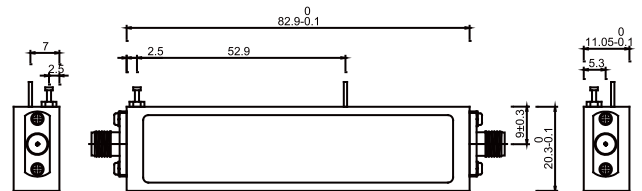
BH29



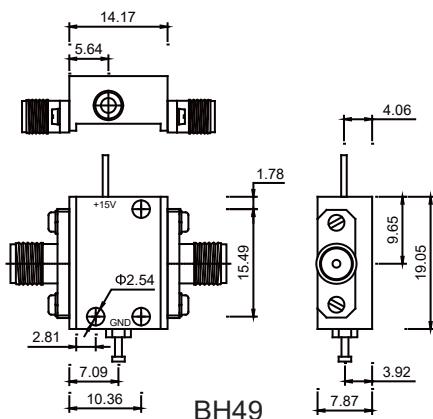
BH42



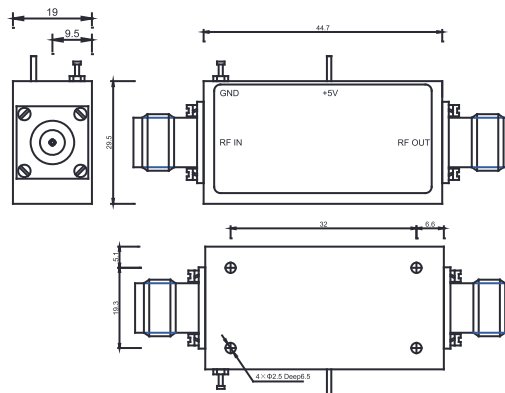
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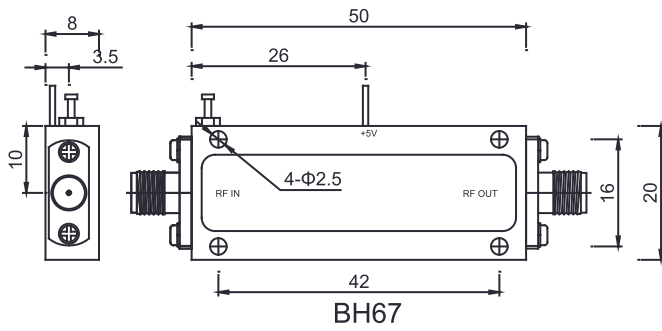
BH46



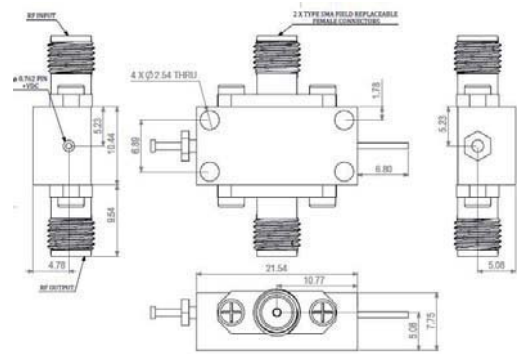
BH49



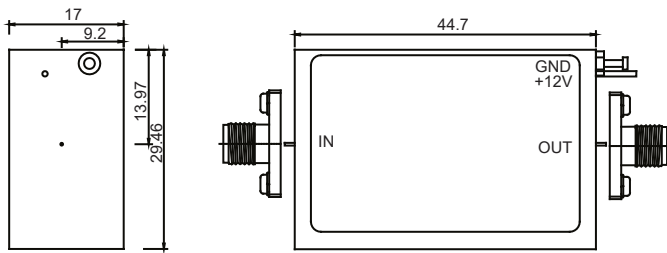
BH54



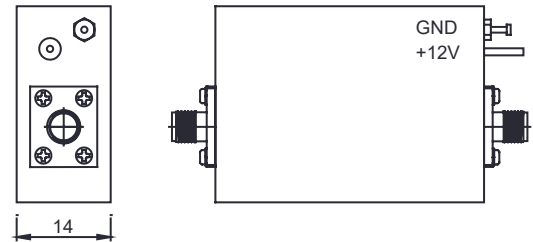
BH67



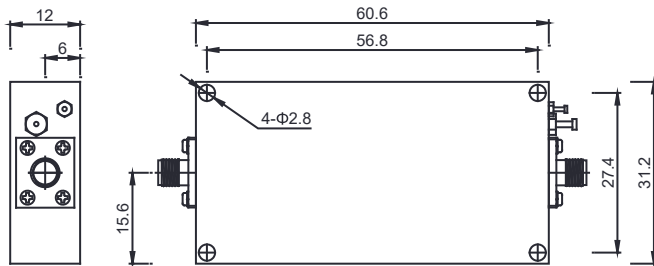
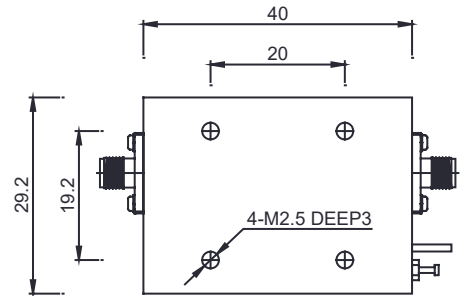
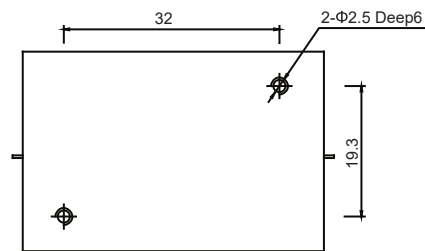
BH70



DH4



DH14



DH13