

Broadband Medium Power Amplifiers

FEATURES:

- ❖ Coverage From 0.5 to 65.0 GHz (Octave/Multi-Octave)
- ❖ Up to 2 Watt Output Power (@1dB Compression Point)
- ❖ Compact/Rugged Thin-Film Construction
- ❖ Economically Priced

APPLICATIONS:

- ❖ General High Power Laboratory RF Sources.
- ❖ Output Amplifiers in test Equipment (ATE & AGE)
- ❖ Driver Amplifiers in RF Distribution Intermediate Power Amplifiers (IPA) in High Power Chains.



CBM Series

DESCRIPTION:

Cernex's CBM series amplifiers are designed for use in a wide range of general purpose applications such as laboratory test equipment, instrumentation and other applications requiring moderate power output. Reliable operation is achieved using rugged stripline circuit construction with selected GaAs FET devices.

SPECIFICATIONS:

Model Number	Frequency Range (GHz)	Gain (dB) Min.	SS Flatness (+/-dB) Max.	NF (dB) Max.	P1dB (dBm) Min.	VSWR In/Out Max.	Current @ 12-15 VDC (mA) Typ.	Case Type
CBMU1013030	0.1-1	30	1.5	10	30	2:1	2.0	6.0x3.0x1.0
CBMV1U52322	10-500MHz	23-26.5	1.5	3.5	22	2:0:1	200	LN3
CBMV1123013	10MHz-12	36	2	4.5	13	2:0:1	250	LN5
CBMU1U53020	100-500MHz	30-41dB	0.75dB	4.0	20	1.5:1	250	LN3
CBMU1041027	0.1-4	10	1.0	-	25	2:0:1	500	MK2
CBMU1183025	0.1-18	30	2.8	4.5	25	2.5:1	950	MK4
CBMU1183328	0.1-18	33	2.8	4.5	28	2.5:1	1000	MK4
CBMU1263026	0.1-26.5	30	3.0	6.0	26	2:0:1	650	MK3
CBMU4062525	0.4-6	25	2.5	3	25	2.5:1	500	HN4
CBMU5022020	0.5-2	20	1.2	10	20	2:0:1	300	LN3
CBMU5022523	0.5-2	25	1.5	5.00	23	2:1	300	LN4
CBMU5022425	0.5-2	24	1.5	5.00	25	2:1	450	LN4
CBMU5023027	0.5-2	30	1.5	5.00	27	2:1	700	LN4
CBMU5023030	0.5-2	30	1.5	5.00	30	2:1	1300	LN4
CBMU5042023	0.5-4	20	2.0	5.00	23	2.5:1	300	LN4



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CBMU5042523	0.5-4	25	2.0	5.00	23	2.5:1	350	LN4
CBMU5042525	0.5-4	25	2.0	5.00	25	2.5:1	550	LN4
CBMU5043225	0.5-4	32	2.5	5.00	25	2.5:1	600	LN4
CBMU5042527	0.5-4	25	2.0	5.00	27	2.5:1	700	LN4
CBMU5043027	0.5-4	30	2.5	5.00	27	2.5:1	780	LN4
CBMU5043030	0.5-4	30	3.00	6.00	30	2.5:1	1500	LN5
CBMU5183030	0.5-18	30	2.5	10	30	2.5:1	2.0A	SN8
CBMU8212624	0.8-21	20	1.5	5.5	24	1.7:1	400	MK2
CBM01022723	1-2	27	1.50	5.00	23	2:1	300	LN4
CBM01023523	1-2	35	1.75	5.00	23	2:1	400	LN4
CBM01022727	1-2	27	1.50	5.00	27	2:1	700	LN4
CBM01023225TH	1-2	32	1.0	2.5	25	2:01	300	LN4
CBM01023527	1-2	35	1.75	5.00	27	2:1	650	LN5
CBM01022730	1-2	27	1.50	5.00	30	2:1	1500	LN5
CBM01023530	1-2	35	2.00	5.00	30	2:1	1400	LN5
CBM01023527	1-2	35	1.75	5.00	27	2:1	650	LN5
CBM01022730	1-2	27	1.50	5.00	30	2:1	1500	LN5
CBM01023530	1-2	35	2.00	5.00	30	2:1	1400	LN5
CBM01024025	1-2	40	1.0	2.5	25	2:01	300	LN5
CBM01022522	1-2.5	25	1.0	7.0	22	2:01	2A	LN3
CBM01182725	1-18	27	3.0	5.0	25	2:01	1200	MK4
CBM02042523	2-4	25	1.50	5.00	23	2:1	300	LN3
CBM02043223	2-4	32	1.75	5.50	23	2:1	350	LN4
CBM02042527	2-4	25	1.50	5.00	27	2:1	600	LN4
CBM02043527	2-4	35	1.75	5.50	27	2:1	680	LN5
CBM02043225T	2-4	32	1.0	2.5	25	2:01	300	LN4
CBM02042530	2-4	25	1.50	5.00	30	2:1	850	LN4
CBM02042915	2-4	29	2.0	4.5	15	2:01	150	LN3
CBM02043530	2-4	35	2.00	5.00	30	2:1	1000	LN5
CBM02044025	2-4	40	1.0	2.5	25	2:01	300	LN5
CBM02044033	2-4	40	2.25	5.00	33	2:1	1900	LN7
CBM02062523	2-6	25	1.50	5.00	23	2:1	300	LN4
CBM02063523	2-6	35	2.00	5.00	23	2:1	400	LN4
CBM02062527	2-6	25	1.50	5.00	27	2:1	550	LN5
CBM02063527	2-6	35	2.00	5.00	27	2:1	650	LN5
CBM02062530	2-6	25	1.50	5.00	30	2:1	950	LN5
CBM02063530	2-6	35	1.75	5.50	30	2:1	1000	LN7
CBM02072830-01	2-7	28	1.5	6	30	2:01	2.0A	LN7
CBM02073027	2-7	30	2.0	5.0	27	2:01	500	LN4
CBM02073530	2-7	35	1.5	6	30	2:01	2A	LN7
CBM02081520	2-8	15	1.5	4.0	20	2:01	180	LN3



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CBM02082823	2-8	28	1.75	5.00	23	2:1	400	LN4
CBM02083230	2-8	32	2.0	7.00	30	2:01	1.5A	LN5
CBM02083326	2-8	33	2.5	3.50	26	2:01	550	LN4
CBM02083523	2-8	35	2.50	5.00	23	2:1	450	LN5
CBM02083027	2-8	30	1.75	5.00	27	2:1	750	LN5
CBM02083827	2-8	38	2.00	5.00	27	2:1	850	LN5
CBM02083030	2-8	30	2.25	5.50	30	2:1	1100	LN5
CBM02083830	2-8	38	2.50	5.50	30	2:1	1200	LN7
CBM02181522	2-18	15	2.0	6.00	22	2:0:1	500	LN3
CBM02181822	2-18	18	3.00	6.00	22	2.3:1	600	LN4
CBM02182422	2-18	24	3.25	6.00	22	2.3:1	700	LN4
CBM02183022	2-18	30	3.50	6.00	22	2.3:1	800	LN4
CBM02183326	2-18	33	3.5	3.5	26	2.2:1	900	MK4
CBM02183522	2-18	35	3.75	6.00	22	2.3:1	900	LN4
CBM02183023	2-18	30	3.0	6.5	23	2.3:1	1000	LN4
CBM02183825	2-18	38	3.0	6.5	25	2.3:1	1700	MK4
CBM02184030	2-18	40	4.0	5.0	30	2.2:1	2200	SN8
CBM02201621	2-20	16	3.50	7.00	21	2.5:1	600	LN3
CBM02202221	2-20	22	3.75	7.00	21	2.5:1	700	LN4
CBM02202821	2-20	28	3.75	7.00	21	2.5:1	800	LN4
CBM02203421	2-20	34	4.00	7.00	21	2.5:1	900	LN5
CBM03062118	3-6	21	1.0	7.0	18	2.01	300	LN3
CBM03122523	3.7-12.7	25	2.00	5.5	23	2:1	400	LN4
CBM03123023	3.7-12.7	30	2.50	5.5	23	2:1	480	LN4
CBM03123823	3.7-12.7	38	2.75	5.5	23	2:1	560	LN5
CBM03122527	3.7-12.7	25	2.00	6.0	27	2:1	640	LN4
CBM03123027	3.7-12.7	30	2.50	6.0	27	2:1	800	LN5
CBM03123827	3.7-12.7	38	2.75	6.0	27	2:1	860	LN5
CBM03122530	3.7-12.7	25	2.00	6.0	30	2:1	880	LN5
CBM03123030	3.7-12.7	30	2.50	6.0	30	2:1	1600	LN5
CBM03123030	3.7-12.7	30	2.50	6.0	30	2:1	1600	LN5
CBM03122530	3.7-12.7	25	2.00	6.0	30	2:1	880	LN5
CBM03123030	3.7-12.7	30	2.50	6.0	30	2:1	1600	LN5
CBM03123830	3.7-12.7	38	2.75	6.0	30	2:1	1675	LN7
CBM03142323	3.7-14.5	23	2.50	6.0	23	2.2:1	400	LN4
CBM03142823	3.7-14.5	28	2.75	6.0	23	2.2:1	480	LN4
CBM03143623	3.7-14.5	36	3.00	6.0	23	2.2:1	560	LN5
CBM03142327	3.7-14.5	23	2.50	6.50	27	2.2:1	640	LN4
CBM03142827	3.7-14.5	28	2.75	6.50	27	2.2:1	800	LN5
CBM03143627	3.7-14.5	36	3.00	6.50	27	2.2:1	860	LN5
CBM04082823	4-8	28	1.50	5.50	23	2:1	350	LN4
CBM04083623	4-8	36	1.75	5.50	23	2:1	425	LN4



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CBM04082627	4-8	26	1.25	6.00	27	2:1	600	LN4
CBM04083027	4-8	30	1.50	6.00	27	2:1	680	LN4
CBM04082830	4-8	28	2.00	6.00	30	2:1	1100	LN5
CBM04083830	4-8	38	2.00	6.00	30	2:1	1200	LN7
CBM04084025	4-8	40	1.0	2.5	25	2.01	500	LN5
CBM04102523	4-10.5	25	2.00	6.00	23	2:1	500	LN4
CBM04103027	4-10.5	30	2.00	6.00	27	2:1	800	LN5
CBM04103030	4-10.5	30	2.25	6.00	30	2:1	1400	LN5
CBM04103830	4-10.5	38	2.25	6.00	30	2:1	1500	LN7
CBM04122523	4-12	25	1.50	6.00	23	2:1	400	LN4
CBM04123523	4-12	35	1.75	6.00	23	2:1	500	LN5
CBM04124023	4-12	40	2.00	6.00	23	2:1	560	LN5
CBM04123027	4-12	30	2.50	7.00	27	2:1	800	LN4
CBM04124027	4-12	40	3.00	7.00	27	2:1	880	LN5
CBM04123030	4-12	30	2.50	8.00	30	2:1	1500	LN5
CBM04124030	4-12	40	3.00	8.00	30	2:1	1800	LN7
CBM05152523	5-15	25	1.50	6.00	23	2:1	400	LN4
CBM05153023	5-15	30	1.75	6.00	23	2:1	480	LN4
CBM05153823	5-15	38	2.00	6.00	23	2:1	560	LN5
CBM05152527	5-15	25	2.00	7.00	27	2:1	640	LN4
CBM05153027	5-15	30	2.50	7.00	27	2:1	800	LN5
CBM05153827	5-15	38	3.00	7.00	27	2:1	880	LN5
CBM05152530	5-15	25	2.75	7.00	30	2:1	1600	LN5
CBM05153030	5-15	30	3.00	7.00	30	2:1	1670	LN5
CBM05153830	5-15	38	3.50	7.00	30	2:1	1800	LN7
CBM06122423	6-12	24	1.50	6.00	23	2:1	400	LN4
CBM06123023	6-12	30	1.75	6.00	23	2:1	480	LN4
CBM06124023	6-12	40	2.00	6.00	23	2:1	640	LN4
CBM06122427	6-12	24	1.50	6.00	27	2:1	800	LN4
CBM06123027	6-12	30	1.75	6.00	27	2:1	850	LN5
CBM06124027	6-12	40	2.00	6.00	27	2:1	980	LN5
CBM06122430	6-12	24	1.50	6.50	30	2:1	1000	LN5
CBM06123030	6-12	30	1.75	6.50	30	2:1	1100	LN5
CBM06124030	6-12	40	2.00	6.50	30	2:1	1200	LN7
CBM06182223	6-18	22	1.50	6.00	23	2:1	400	LN4
CBM06183023	6-18	30	1.75	6.00	23	2:1	480	LN4
CBM06183823	6-18	38	2.00	6.00	23	2:1	560	LN5
CBM06182627	6-18	26	2.00	6.00	27	2:1	640	MK3
CBM06182724	6-18	27	2.0	7.0	24	2:01	315	LN4
CBM06183027	6-18	30	2.50	7.00	27	2:1	800	MK3
CBM06183326	6-18	33	1.5	5.0	26	2:01	1000	MK3



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CBM06183030	6-18	30	2.0	8.0	30	2:0:1	2400	SS8
CBM06183827	6-18	38	2.50	7.00	27	2:1	960	MK4
CBM06182530	6-18	25	2.75	10.00	30	2:1	1600	SN8
CBM06183030	6-18	30	3.00	10.00	30	2:1	1670	SN8
CBM06183830	6-18	38	3.50	10.00	30	2:1	1800	SN8
CBM08101020	8-10	10	0.5	3.00	20	2:0:1	150	LN2
CBM08113020	8-11	30	1.0	5.0	20	2:0:1	250	LN3
CBM08122526	8-12	25	1.5	6.00	26	2:0:1	400	LN4
CBM08123027	8-12	30	1.0	7.0	27	2:0:1	600	LN4
CBM08123225	8-12	32	1.0	2.5	25	2:0:1	500	LN4
CBM08124025	8-12	40	1.0	2.5	25	2:0:1	500	LN4
CBM08122423	8-12.4	24	1.00	5.50	23	2:1	400	LN4
CBM08123023	8-12.4	30	1.50	5.00	23	2:1	480	LN4
CBM08123823	8-12.4	38	1.75	5.00	23	2:1	560	LN4
CBM08122427	8-12.4	24	1.50	6.00	27	2:1	700	LN4
CBM08123027	8-12.4	30	1.75	6.00	27	2:1	800	LN5
CBM08123827	8-12.4	38	2.00	6.00	27	2:1	900	LN4
CBM08122430	8-12.4	24	1.75	6.00	30	2:1	1500	MK4
CBM08123230	8-12.4	32	2.00	6.00	30	2:1	1600	MK4
CBM08123830	8-12.4	38	2.25	6.00	30	2:1	1670	MK4
CBM08182423	8-18	24	1.25	7.00	23	2:1	400	LN4
CBM08183023	8-18	30	1.50	7.00	23	2:1	480	LN4
CBM08183823	8-18	38	1.75	7.50	23	2:1	560	LN5
CBM08182627	8-18	26	2.00	7.00	27	2:1	800	LN4
CBM08183427	8-18	34	2.00	7.00	27	2:1	880	LN5
CBM08184027	8-18	40	2.50	7.50	27	2:1	960	LN5
CBM08182830	8-18	28	2.50	10.00	30	2:1	1600	SN8
CBM08183430	8-18	34	3.00	10.00	30	2:1	1670	SN8
CBM08184030	8-18	40	3.00	10.00	30	2:1	1740	SN8
CBM0916302	9.6-16.7	30	1.00	4.00	26	1.7:1	600	LN4
CBM12182423	12-18	24	1.25	7.00	23	2:1	400	LN4
CBM12183023	12-18	30	1.50	7.00	23	2:1	480	LN4
CBM12183623	12-18	36	1.75	7.00	23	2:1	560	LN4
CBM12182827	12-18	28	2.00	7.00	27	2:1	800	LN4
CBM12183827	12-18	38	2.50	7.00	27	2:1	960	LN5
CBM12182830	12-18	28	2.00	10.00	30	2:1	1600	SN8
CBM12183830	12-18	38	2.50	10.00	30	2:1	1700	SN8
CBM12183920-01	12-18	39	2.0	4.0	20	2:0:1	600	LN4
CBM12202523	12-20	25	1.50	7.00	23	2:1	650	LN4
CBM12203023	12-20	30	1.50	7.00	23	2:1	700	LN5
CBM12203523	12-20	35	2.00	7.00	23	2:1	800	LN5



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CBM16183530	16-18	35	1.0	5.0	30	2:01	1000	MK3
CBM16223030	16-22	30	3.0	7.0	30	2.01	2000	SN8
CBM17402020	17-40	20	4.0	9.0	20	2.5:1	450	MK3
CBM18202523	17.5-20.5	25	1.5	5.0	23	2.01	450	MK3
CBM18242227	18-24.5	22	3.00	7.00	27	2:1	1500	MK3
CBM18243030	18-24.5	30	3.00	7	30.5	2:1	3500	MK4
CBM18243027	18-24.5	30	3.00	7.00	27	2:1	1700	MK3
CBM18262423	18-26.5	24	2.00	7.00	23	2:1	850	LN4
CBM18263023	18-26.5	30	2.50	7.00	23	2:1	600	LN4
CBM18263523	18-26.5	35	2.50	7.00	23	2:1	950	LN5
CBM18262827	18-26.5	28	2.50	7.00	27	2:1	1150	MK3
CBM18263427	18-26.5	35	2.50	7.00	27	2:1	1200	MK3
CBM18263030	18-26.5	30	3.0	7.0	30	2:1	2400	SN8
CBM18263530	18-26.5	35	4.0	7.0	30	2:1	2500	SN8
CBM18402020	18-40	20	4.0	9.0	20	2.5:1	450	MK3
CBM18402023	18-40	20	4.0	9.0	23	2.5:1	500	MK3
CBM18403523	18-40	35	4.0	9.0	23	2.5:1	1000	MK3
CBM20422020	20-42	20	4.0	10.0	20	2.5:1	400	MK3
CBM20502020-01	20-50	20	5.0	10.0	20Psat	2.01	400	MK3
CBM23283020	23-28	30	3.5	10.0	20	2:1	300	MK3
CBM24402824	24-40	28	3.0	8.0	24	2.5:1	1.0A	MK3
CBM25302523	25-30	25	2.50	8.00	23	2:1	1000	MK3
CBM25303027	25-30	30	3.00	8.00	27	2:1	1800	MK3
CBM25303530	25-30	35	3.50	8.00	30	2:1	2500	SN8
CBM26402020	26.5-40	20	2.5	9.0	20	2.5:1	500	MK3
CBM26402520	26.5-40	25	2.5	9.0	20	2.5:1	575	MK3
CBM26403022	26.5-40	30	2.5	9.0	22	2.5:1	650	MK3
CBM26403025	26.5-40	30	2.5	9.0	25	2.5:1	1100	MK4
CBM26403527	26.5-40	35	4.0Typ	9.0	27Psat	2.5:1	3000	SN8
CBM27312527	27-31	25	1.5	9.0	27	2.01	0.8A	MK3
CBM27323027	27-32	30	3.0	10.0	27	2:1	800	MK3
CBM27323530	27-32	35	3.5	10.0	30	2:1	1500	SN8
CBM30362523	30-36	25	2.50	10.00	23	2:1	800	MK3
CBM30363027	30-36	30	3.00	10.00	27	2:1	1500	MK3
CBM30363528	30-36	35	3.50	10.00	28	2:1	2000	MK3
CBM32363230	32-36	32	1.5	7.0	30	2.01	2.5A	SN8
CBM32383023	32-38	30-35	1.5	10	23	2.01	900	MK3
CBM33372919	33-37	29	2.5	9.0	19	2.01	250	MK2
CBM33372030	33-37	20	2.5	5.0	30	2.01	2010	SN8
CBM33392030	33-39	20	3.0	9.0	30	2.01	3.7A	SN8



Broadband Medium Power Amplifiers

Model Number	Frequency Range (GHz)	Gain (dB) Min.	SS Flatness (+/-dB) Max.	NF (dB) Max.	P1dB (dBm) Min.	VSWR In/Out Max.	Current @ 12-15 VDC (mA) Typ.	Case Type
CBM36402520	36-40	25	2.5	10.0	20	2:1	500	MK3
CBM36402523	36-40	25	2.50	10.00	23	2:1	800	MK3
CBM36403025	36-40	30	3.00	10.00	25	2:1	1000	MK3
CBM36403527	36-40	35	3.50	10.00	27	2:1	1000	MK3
CBM36403530	36-40	35	3.50	10.0	30	2:1	2000	SN8
CBM36432222	36-43	22	2.0	10.0	22	2:1typ	500	MK3
CBM36434022	36-43	40	4.5	10.0	22	2:1typ	650	MK3
CBM36434030	36-43	40	4.5	10	29	2:01	3.5A	SN8
CBM37453020	37-45	30	3.5	5.0	20	2:1	500	MK3
CBM40502020	40-50	20	6.0	10	20	2:01	450	MK2
CBM40503030	40-50	30	7.0	10	30	2:01	5000	SN8
CBM45503027	45-50	30	6.0	10	27	2:01	4500	SN8
CBM50752515	50-75	25	2	10	15	2.5:1	350	MV2
CBM57652515	57-65	25	3.50	7	15	2:1	250	MV2
CBM57653015	57-65	30	3.50	7	15	2:1	300	MV3
CBM71762515	71-76	25	2.0	-	15	2.5:1	500	MW3
CBM751101007	75-110	10	5.0	-	7.0	-	-	MW2
CBM76862000	76-86	20	2.0	-	0	2.5:1	200	IE3
CBM90951010	90-95	10	2.5	10	10	2.5:1	400	MW3
CBM92961520	92-96	15	2Typ	-	20Typ	2:1typ	750	MW3

ALL THE ABOVE SPECIFICATIONS ARE @ 25°C

OTHER FREQUENCY BANDS & POWER LEVELS ARE ALSO AVAILABLE.

TEMPERATURE COMPENSATED AMPLIFIERS & GAIN CONTROL ARE ALSO AVAILABLE

*CONSULT THE FACTORY

▲ SMALLER PACKAGES ARE ALSO AVAILABLE

CERNEX RESERVES THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.