

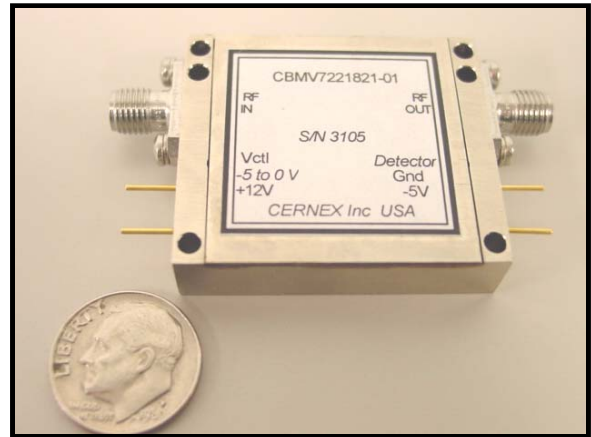
## Broadband Modulator Driver Amplifiers

### FEATURES:

- ❖ 30 KHz to 65 GHz
- ❖ Compact Size for Drop-in/Micro-Strip Applications
- ❖ Variable Gain Control Option
- ❖ Output Power Level up to +8Vpp
- ❖ Low Gain Ripple
- ❖ High Speed up to 40 Gb/s Suitable for OC48, OC192, OC384 and OC768 Systems

### APPLICATIONS:

- ❖ Medium Power Linear Gain for Broad-Band Applications
- ❖ Driver for LiNbO<sub>3</sub> Modulator in High Bit-Rate SONET/SDH Transmission Systems



**CBM Series**

### DESCRIPTION:

**Cernexwave's CBM** series are precision broadband modulator driver amplifiers. The amplifiers are designed with thin-film GaAs FETs for high reliability telecom systems and high-speed data links operating up to 20 Gb/s. These amplifiers have low internal jitter, making them useful for digital applications, and operate over a case temperature from -40°C to 70°C. Various output voltage levels are offered (up to 8 Vpp) at 10 GHz, 12 GHz, and 18 GHz into 50 ohms. Low jitter and large amplitude output make these amplifiers attractive components for driving LiNbO<sub>3</sub> modulators in applications where a high extension ratio is required.

### SPECIFICATIONS:

Model Number	Frequency Range (GHz)	Small Signal Gain (dB) Min.	Output Power Vpp Min.	dBm Min	Input/ Output Match (dB) Typ.	Current @12/-5 VDC (mA) Typ.	Case Type
CBMV3102013	30KHz – 10.0GHz	20	+3.0	13.5	-10/-10	250/10	FK4
CBMV3102016	30KHz – 10.0GHz	20	+4.0	16	-10/-10	325/10	FK4
CBMV3102018	30KHz – 10.0GHz	20	+5.0	18	-10/-10	400/10	FK4
CBMV3102019	30KHz – 10.0GHz	20	+6.0	19.5	-10/-10	450/15	FK4
CBMV3102021	30KHz – 10.0GHz	20	+7.0	21	-10/-10	450/15	FK4
CBMV3122013	30KHz – 12.0GHz	20	+3.0	13.5	-10/-10	250/10	FK4
CBMV3122016	30KHz – 12.0GHz	20	+4.0	16	-10/-10	350/10	FK4
CBMV3122018	30KHz – 12.0GHz	20	+5.0	18	-10/-10	475/15	FK4
CBMV3122019	30KHz – 12.0GHz	20	+6.0	19.5	-10/-10	500/20	FK4
CBMV3122021	30KHz – 12.0GHz	20	+7.0	21	-10/-10	550/20	FK4
CBMV3142013	30KHz – 14.0GHz	20	+3.0	13.5	-10/-10	250/10	FK4
CBMV3142016	30KHz – 14.0GHz	20	+4.0	16	-10/-10	350/10	FK4
CBMV3142018	30KHz – 14.0GHz	20	+5.0	18	-10/-10	475/15	FK4
CBMV3142019	30KHz – 14.0GHz	20	+6.0	19.5	-10/-10	500/20	FK4
CBMV3142021	30KHz – 14.0GHz	20	+7.0	21	-10/-10	550/20	FK4
CBMV5182013	50KHz – 18.0GHz	20	+3.0	13.5	-10/-10	250/10	FK4
CBMV5182016	50KHz – 18.0GHz	20	+4.0	16	-10/-10	325/15	FK4
CBMV5181818	50KHz – 18.0GHz	18	+5.0	18	-10/-10	475/20	FK4
CBMV5181819	50KHz – 18.0GHz	18	+6.0	19.5	-10/-10	500/20	FK4
CBMV5181821	50KHz – 18.0GHz	18	+7.0	21	-10/-10	550/20	FK4
CBMV7201813	75KHz – 20.0GHz	18	+3.0	13.5	-10/-10	300/10	FK4



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Model Number	Frequency Range (KHz - GHz)	Small Signal Gain (dB) Min.	Output Power		Input/ Output Match (dB) Typ.	Current @12/-5 VDC (mA) Typ.	Case Type
			Vpp Min.	dBm Min			
CBMV7201816	75KHz – 20.0GHz	18	+4.0	16	-10/-10	375/15	FK4
CBMV7201818	75KHz – 20.0GHz	18	+5.0	18	-10/-10	475/20	FK4
CBMV7201819	75KHz – 20.0GHz	18	+6.0	19.5	-10/-10	500/20	FK4
CBMV7201821	75KHz – 20.0GHz	18	+7.0	21	-10/-10	575/20	FK4
CBMV7221813	75KHz – 22.0GHz	18	+3.0	13.5	-10/-10	300/10	FK4
CBMV4201523	40KHz – 20.0GHz	15	+9.0	23	-10/-10	8V/180mA	-
CBMV7221816	75KHz – 22.0GHz	18	+4.0	16	-10/-10	375/15	FK4
CBMV7221818	75KHz – 22.0GHz	18	+5.0	18	-10/-10	475/20	FK4
CBMV7221819	75KHz – 22.0GHz	18	+6.0	19.5	-10/-10	500/20	FK4
CBMV7221821	75KHz – 22.0GHz	18	+7.0	21	-10/-10	575/20	FK4
CBMV7401610	75KHz – 40.0GHz	16	+2.0	10	-10/-10	325/20	FV3
CBMV7401613	75KHz – 40.0GHz	16	+3.0	13.5	-10/-10	400/20	FV3
CBMV7402013	75KHz – 40.0GHz	20	+3.0	13.5	-10/-10	500/20	FV3
CBMV7451613	75KHz – 45.0GHz	16	+3.0	13.5	-10/-10	400/20	FV3
CBMV7452013	75KHz – 45.0GHz	20	+3.0	13.5	-10/-10	600/20	FV3
CBMV4402016	40KHz – 40.0GHz	20	+4.0	16	-10/-10	8V/300mA	-
CBMV7452019	75KHz – 45.0GHz	20	+6.0	19	-10/-10	650/20	FV3
CBMV7452021	75KHz – 45.0GHz	20	+7.0	21	-10/-10	725/20	FV3
CBMV7452025	75KHz - 45.0GHz	20	+3.0	25	-10/-10	500/20	-
CBMV7501616	75KHz – 50.0GHz	16	+4.0	16	-10/-10	600/20	FV4
CBMV7501618	75KHz – 50.0GHz	16	+5.0	18	-10/-10	650/20	FV4
CBMV7502016	75KHz – 50.0GHz	20	+4.0	16	-10/-10	550/20	FV4
CBMV7502018	75KHz – 50.0GHz	20	+5.0	18	-10/-10	650/20	FV4
CBMV7552016	75KHz – 55.0GHz	20	+4.0	16	-10/-10	550/20	FV4
CBMV7552018	75KHz – 55.0GHz	20	+5.0	18	-10/-10	650/20	FV4
CBMV7602013	75KHz – 60.0GHz	20	+3.0	13.5	-10/-10	550/20	FV4
CBMV7602016	75KHz – 60.0GHz	20	+4.0	16	-10/-10	700/20	FV4
CBMV7652013	75KHz – 65.0GHz	20	+3.0	13.5	-10/-10	550/20	FV4
CBMV7652016	75KHz – 65.0GHz	20	+4.0	16	-10/-10	750/20	FV4

HIGHER GAIN AND OUTPUT VOLTAGE ARE ALSO AVAILABLE.

AVAILABLE OPTIONS INCLUDE HIGHER SPEED AND OUTPUT VOLTAGE LEVEL, OFFSET VOLTAGE ADDED TO THE OUTPUT SIGNAL, BIAS NETWORK, PHASE SHIFTER AND VARIABLE GAIN CONTROL. HIGHER GAIN VERSIONS ARE ALSO AVAILABLE

CERNEXWAVE RESERVES THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE.