

Active and Passive Frequency Multipliers

FEATURES:

- ❖ Low Cost, High Quality
- ❖ Compact Size, Light Weight
- ❖ High Performance up to 110 Ghz

APPLICATIONS:

- ❖ Radar
- ❖ Communication and Sensor System



DESCRIPTION:

CFM Series

Cernex's series of active frequency multipliers cover the frequency range of 0.5 to 110 GHz. The multipliers utilize state of the art MIC and MMIC technologies to provide highly stable, reliable and efficient frequency extenders for system applications.

SPECIFICATIONS:

Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm) Min.	Harmonic Rejection Max. (dbc)	Current @ 12 VDC (mA) Typ.	Case Type
X2							
CFMU501X220	0.5-1	1-2	0	20	-	200	LN7
CFMU5U7X220	0.5-0.7	1-1.4	0	20	10	200	LN7
CFMU701X220	.7-1	1.4-2	0	20	10	200	LN7
CFM0101X220	1-1.4	2-2.8	0	20	10	200	LN7
CFM0102X2202	1.4-2	2.8-4	0	20	10	200	LN7
CFM0102X220	1-2	2-4	0	20	-	200	LN7
CFM0105X220	1.5-5	3-10	0	20	-	200	LN7
CFM0202X220	2-2.8	4-5.6	0	20	10	200	LN7
CFM0203X220	2.8-3.8	5.6-7.6	0	20	10	200	LN7
CFM0204X220	2-4	4-8	0	20	-	200	LN7
CFM0205X220	2-5	4-10	0	20	-	200	LN7
CFM0206X220	2-6	4-12	0	20	-	200	LN7
CFM0207X220	2.5-7.5	5-15	0	20	-	200	LN7
CFM0305X220	3.8-5.4	7.6-10.8	0	20	10	200	LN7
CFM0306X220	3-6	6-12	0	20	-	200	LN7
CFM0309X220	3-9	6-18	0	20	-	200	LN5
CFM0405X220	4.25-5.25	8.5-10.5	10	20	10	200	LN6
CFM0406X220	4-6	8-12	0	20	-	200	LN7
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7
CFM0409X220	4-9	8-18	0	20	-	250	LN7



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Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm) Min.	Harmonic Rejection Max. (dbc)	Current 12 VDC (mA) Typ.	Case Type
CFM0506X220	5.25-6.25	10.5-12.5	10	20	10	200	LN6
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7
CFM0510X215	5-10	10-20	0	15	-	270	LN8
CFM0708X220	7.0-8.0	14.0-16.0	10	20	10	200	LN6
CFM0710X220	7.6-10	15.2-20	0	20	10	200	LN7
CFM0809X220	8.75-9.75	17.5-19.5	10	20	10	200	LN6
CFM0913X215	9-13.25	18-26.5	0	15	-	300	LN8
CFM0913X215	9.2-13	18.4-26	0	15	10	300	LN8
CFM0913X206	9.0-13.25	18-26.5	20	6	-	-	*
CFM0913X220	9-13.25	18.0-26.5	10	20	20	250	LN6
CFM1320X218	13.25-20	26.5-40	10	18	20	300	MK4
CFM1320X220	13.25-20	26.5-40	10	20	20	350	MK4
CFM1320X208	13.25-20.0	26.5-40	10	8.0	20 Typ.	200	MK3
CFM1320X205	13.25-20.0	26.5-40	20	5	-	-	*
CFM1320X206	13.25-20	26.5-40	23	6	-	-	*
CFM1320X208AV	13.25-20	26.5-40	22	8	-	-	19x19x38.5mm
CFM1625X215	16.5-25	33-42	0	15	-	350	*
CFM1625X213	16.5-25	33-50	10	13	20	350	MK2+MK2
CFM1625X200AV	16.5-25	33-50	0	7	-	-	51.3x28.6x28.6mm
CFM1822X220	18.5-22.25	37-45	5	20	-	-	*
CFM2030X210	20-30	40-60	10 Typ	10	20 Typ	350	MVC3
CFM2030X205	20-30	40-60	23	5	-	-	*
CFM2021X215	20.5-21.5	41-43	0	15	-	350	MK4
CFM2030X207AV	20-30	40-60	0	7	-	-	43x28.6x28.6mm
CFM2225X218	22.5-25	45-55	5	18	-	-	*
CFM2533X216	25-33	50-66	5	16	-	-	*
CFM2537X204	25-37.5	50-75	20	4	-	250	*
CFM2537X203	25-37.5	50-75	20	3	-	-	*
CFM2537X205	25-37.5	50-75	23	5	-	-	*
CFM2537X206AV	25-37.5	50-75	22	6	-	-	19.1x19.x21.1mm
CFM2732X216	27-32.5	54-65	0	15	-	450	MV2R+MV2
CFM3045X205	30-45	60-90	23	5	-	-	*
CFM3755X206	37.5-55	75-110	23	6	-	-	*
CFM4648X210	46-48	92-96	0	10	-	300	*
CFM85110X2N4AV	85-110	170-220	14	-4	-	-	20x20x16.1mm
X3							
CFM0102X320	1.7-2	5.1-6	0	20	7	250	LN7
CFM0102X320	1-2	3-6	0	20	-	250	LN7
CFM0303X320	3-3.8	9-11.4	0	20	7	250	LN7
CFM0304X320	3-4	9-12	0	20	-	250	LN7
CFM0406X320	4-6	12-18	0	20	-	300	LN7
CFM0506X320	5-6	15-18	0	20	7	250	LN7



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Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm) Min.	Harmonic Rejection Max. (dbc)	Current 12 VDC (mA) Typ.	Case Type
CFM0813X305	8.67-13.33	26.5-40.0	20	5	-	-	*
CFM0813X304	8.67-13.33	26.5-40.0	23	4	-	-	*
CFM0813X303	8.82-13.88	26.5-40.0	20	3	-	-	*
CFM1116X305	11.00-16.67	33.0-50.0	10	5.0	-	200	*
CFM1116X303	11.0-16.67	33.0-50.0	20	3	-	-	*
CFM1116X303	11.0-16.67	33.0-50.0	23	3	-	-	*
CFM1213X317	12.33-13.33	37-40	10	17	20	500	MK4
CFM1314X315	13.33-14.33	40-43	10	15	20	500	MK4
CFM1320X305	13.33-20.0	40.0-60.0	10	5.0	-	200	*
CFM1320X302	13.33-20.00	40.0-60.0	23	2	-	-	*
CFM1320X302	13.33-20.0	40-60	20	2	-	-	*
CFM1415X313	14.33-15.33	43-46	10	13	20	500	*
CFM1516X310	15-16	45-48	10	10	20	500	MK3
CFM1625X300	16.67-25.0	50-75	20	0	-	-	*
CFM1625X301	16.67-25	50-75	23	1	-	-	*
CFM2030X301	20-30	60-90	20	1	-	-	*
CFM2030X300	20-30	60-90	23	0	-	-	*
CFM2430X308	24-30	72-90	5	8	-	-	*
CFM2536X304	25-36.67	75-110	20	4	-	400	*
CFM2536X303	25-36.67	75-110	23	-3	-	-	*
CFM2536X304AV	25-36.7	75-110	22	4	-	-	19x19.5x26mm
CFM2540X318AV	25-40	75-110	27	9	-	-	19.5x19x26.5mm
CFM3656X3N4AV	36.66-56.67	110-170	19	-4	-	-	28.6x28.6x26mm
CFM73108X3N11AV	73.33-108.33	220-325	12	-11	-	-	19.4x19.4x26.4mm
X4							
CFMU501X420	0.5-1	2-4	0	20	7 Typ	300	LN7
CFM0102X420	1-2	4-8	0	20	7 Typ	300	LN7
CFM0103X420	1.5-3	6-12	0	20	7 Typ	300	LN7
CFM0104X420	1.5-4.5	6-18	0	20	7 Typ	300	LN7
CFM0203X420	2-3	8-12	0	20	7 Typ	250	LN7
CFM0204X420	2-4.5	8-18	0	20	7 Typ	300	LN7
CFM0205X420	2-5	8-20	0	15	7 Typ	300	LN7
CFM0203X420	2.62-3.13	10.48-12.52	10	20	10	350	*
CFM0304X420	3-4	12-16	0	20	7 Typ	300	LN7
CFM0404X420	4.37-4.88	17.48-19.52	10	20	20	475	*
CFM0405X420	4-5	16-20	0	15	7 Typ	300	LN7
CFM0505X420	5.25-5.75	21-23	10	20	20	475	LN6
CFM0506X420	5-6	20-24	0	15	7 Typ	375	LN7
CFM0610X415	6.25-10.0	26.25-40	10	15	10 Typ	600	MK4
CFM0610X420	6.63-10.0	26.25-40	5	20	-	-	*
CFM0607X417	6.87-7.38	27.48-29.52	10	17	20	500	MK4



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CFM0810X410	8.25-10.5	33-42	10	10	20	600	*
CFM0910X415	9.7-10.7	38.8-42.8	0	15	5 Typ	375	MK4
CFM1011X413	10.75-11.50	43-46	10	13	20	600	*
CFM1015X410	10-15	40-60	10	10	20	750	*
CFM1015X413	10-15	40-60	5-10	13	20	650	MV4
CFM1112X418	11.25-12.50	45-55	5	18	-	-	*
CFM1215X420	12.33-15	37-45	5	20	-	-	*
CFM1216X405	12.5-16.50	50-66	5	16	-	-	*
CFM1218X405	12.5-18.75	50-75	10	5.0	-	600	*
CFM0910X415	9.7-10.7	38.8-42.8	0	15	5 Typ	375	MK4
CFM1011X413	10.75-11.50	43-46	10	13	20	600	*
CFM1015X410	10-15	40-60	10	10	20	750	*
CFM1218X410	12.5-18.75	50-75	10 Typ	10	20 Typ	800	*
CFM1416X415	14-16.25	56-65	3	15	5 Typ	375	*
CFM1720X405	17.5-20.0	70-80	10 Typ	5	20 Typ	600	*
CFM2224X405	22.5-24.0	90-96	10 Typ	5	20 Typ	600	*
X6							
CFM0102X620	1-2	6-12	0	20	5 Typ	270	LN8
CFM0203X620	2-3	13-18	0	20	5 Typ	350	LN12
CFM1015X600	10.0-15	60.0-90	10	0.0	-	600	*
CFM1215X608	12-15	72.0-90.0	5	8	-	-	*
CFM1218X600	12.50-18.33	75.0-110.0	10.0	0.0	-	600	*
CFM1516X610	15.33-16	92-96	0	10	-	350	*
CFM0304X620	3-4	18-24	0	20	5 Typ	400	LN10
X8							
CFMU501X820	0.5-1	4-8	0	20	5 Typ	300	LN12
CFM0102X820	1-2	8-16	0	20	5 Typ	360	LN10
CFM0203X820	2.25-3.25	18-26	0	20	5 Typ	450	HN8

ALL THE ABOVE SPECIFICATIONS ARE @ 25C. ALL MODELS' IN/OUT VSWR ARE 2:1Max.
 OTHER FREQUENCIES, MULTIPLICATION FACTORS, AND POWER LEVELS ARE ALSO AVAILABLE.
 *CONSULT THE FACTORY

CERNEX RESERVE THE RIGHT TO CHANGE THE SPECIFICATIONS WITHOUT NOTICE