

## 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 @ 12-15 VDC (mA) Typ.	Case Type
X2							
CFMU501X220	0.5-1	1-2	0	20	-	200	LN7/HN7
CFMU5U7X220	0.5-0.7	1-1.4	0	20	10	200	LN7/HN7
CFMU701X220	.7-1	1.4-2	0	20	10	200	LN7/HN7
CFM0101X220	1-1.4	2-2.8	0	20	10	200	LN7/HN7
CFM0102X2202	1.4-2	2.8-4	0	20	10	200	LN7/HN7
CFM0102X220	1-2	2-4	0	20	-	200	LN7/HN7
CFM0105X220	1.5-5	3-10	0	20	-	200	LN7/HN7
CFM0202X220	2-2.8	4-5.6	0	20	10	200	LN7/HN7
CFM0203X220	2.8-3.8	5.6-7.6	0	20	10	200	LN7/HN7
CFM0204X220	2-4	4-8	0	20	-	200	LN7/HN7
CFM0205X220	2-5	4-10	0	20	-	200	LN7/HN7
CFM0206X220	2-6	4-12	0	20	-	200	LN7/HN7
CFM0207X220	2.5-7.5	5-15	0	20	-	200	LN7/HN7
CFM0305X220	3.8-5.4	7.6-10.8	0	20	10	200	LN7/HN7
CFM0306X220	3-6	6-12	0	20	-	200	LN7/HN7
CFM0309X220	3-9	6-18	0	20	-	200	LN7/HN7
CFM0405X220	4.25-5.25	8.5-10.5	10	20	10	200	LN6/HN6
CFM0406X220	4-6	8-12	0	20	-	200	LN7/HN7
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7/HN7
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7/HN7
CFM0409X220	4-9	8-18	0	20	-	250	LN7/HN7



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Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm) Min.	Harmonic Rejection Max. (dbc)	Current 15 VDC (mA) Typ.	Case Type
CFM0506X220	5.25-6.25	10.5-12.5	10	20	10	200	LN6/HN6
CFM0507X220	5.4-7.6	10.8-15.2	0	20	10	200	LN7/HN7
CFM0510X215	5-10	10-20	0	15	-	270	LN8/HN8
CFM0708X220	7.0-8.0	14.0-16.0	10	20	10	200	LN6/HN6
CFM0710X220	7.6-10	15.2-20	0	20	10	200	LN7/HN7
CFM0809X220	8.75-9.75	17.5-19.5	10	20	10	200	LN6/HN6
CFM0913X215	9-13.25	18-26.5	0	15	-	300	LN8/HN8
CFM0913X215	9.2-13	18.4-26	0	15	10	300	LN8/HN8
CFM0913X206	9.0-13.25	18-26.5	20	6	-	-	*
CFM0913X220	9-13.25	18.0-26.5	10	20	20	250	LN6/HN6
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	26.5-70	10	8.0	-	200	*
CFM1320X220	13.25-20.0	26.5-40	10	20.0	-	600	*
CFM1320X205	13.25-20.0	26.5-40	20	5	-	-	*
CFM1625X215	16.5-25	33-42	0	15	-	350	*
CFM1625X213	16.5-25	33-50	10	13	20	350	*
CFM2030X210	20-30	40-60	10	10	20	350	*
CFM2021X215	20.5-21.5	41-43	0	15	-	350	MK4
CFM2537X204	25-37.5	50-75	20	4	-	250	*
CFM2537X203	25-37.5	50-75	20	3	-	-	*
CFM2732X216	27-32.5	54-65	0	15	-	250	*
CFM4648X210	46-48	92-96	0	10	-	300	*
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
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	33-50	20	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	13.33-20.0	40-60	20	2	-	-	*
CFM1415X313	14.33-15.33	43-46	10	13	20	500	*
CFM1516X310	15-16	45-48	10	10	20	500	*
CFM1625X300	16.67-25.0	50-75	20	0	-	-	*
CFM2030X301	20-30	60-90	20	1.0	-	-	*
CFM2536X303	25-36.67	75-110	20	3.0	-	-	*



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Model Number	Input Frequency (GHz)	Output Frequency (GHz)	Input Power (dBm)	Output Power (dBm) Min.	Harmonic Rejection Max. (dbc)	Current 15 VDC (mA) Typ.	Case Type
CFM2536X304	25-36.67	75-110	20	4		400	*
X4							
CFMU501X420	0.5-1	2-4	0	20	7 Typ	300	LN7/HN7
CFM0102X420	1-2	4-8	0	20	7 Typ	300	LN7/HN7
CFM0103X420	1.5-3	6-12	0	20	7 Typ	300	LN7/HN7
CFM0104X420	1.5-4.5	6-18	0	20	7 Typ	300	LN7/HN7
CFM0203X420	2-3	8-12	0	20	7 Typ	250	LN7/HN7
CFM0204X420	2-4.5	8-18	0	20	7 Typ	300	LN7/HN7
CFM0205X420	2-5	8-20	0	15	7 Typ	300	LN7/HN7
CFM0203X420	2.62-3.13	10.48-12.52	10	20	10	350	*
CFM0304X420	3-4	12-16	0	20	7 Typ	300	LN7/HN7
CFM0304X420	3.5-4.0	14.0-16.0	10	20	20	475	*
CFM0404X420	4.37-4.88	17.48-19.52	10	20	20	475	*
CFM0405X420	4-5	16-20	0	15	7 Typ	300	LN7/HN7
CFM0405X420	4.62-5.13	18.48-20.52	10	20	20	475	*
CFM0505X420	5.25-5.75	21-23	10	20	20	475	LN6/HN6
CFM0506X420	5-6	20-24	0	15	7 Typ	375	LN7/HN7
CFM0610X415	6.25-10.0	26.25-40	10	15	20	600	MK4
CFM0607X417	6.87-7.38	27.48-29.52	10	17	20	500	MK4
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	*
CFM1218X405	12.5-18.75	50-75	10	5.0	-	600	*
CFM1416X415	14-16.25	56-65	3	15	5 Typ	375	*
CFM1720X405	17.5-20.0	70-80	10	5	20	600	*
CFM2224X405	22.5-24.0	90-96	10	5	20	600	*
X6							
CFM0102X620	1-2	6-12	0	20	5 Typ	270	LN7
CFM0203X620	2-3	13-18	0	20	5 Typ	350	LN7
CFM1015X600	10.0-15	60.0-90	10	0.0	-	600	*
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	LN7
X8							
CFMU501X820	0.5-1	4-8	0	20	5 Typ	140	LN6/HN6
CFM0102X820	1-2	8-16	0	20	5 Typ	140	LN6/HN6
CFM0203X820	2.25-3.25	18-26	0	20	5 Typ	300	LN6/HN6

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