

# HIGH-PERFORMANCE WIDE BANDWIDTH AND WIDE DEVIATION FM DEMODULATOR MODULE

## IFDMLIM SERIES

The IFDMLIM series FM demodulators have excellent IF-to-baseband characteristics in their respective operating bands. These demodulators receive FM modulated carriers at different center frequencies and recover the baseband information with high fidelity. The application of these demodulators are in satellite communications and test equipment.



### FEATURES

- Excellent IF-to-baseband characteristics
- Excellent baseband frequency response
- Wide deviations

MODEL NUMBER *	PEAK-TO-PEAK DEVIATION (MHz)	LINEARITY (±%)	LINEAR GROUP DELAY (ns/MHz)	PARABOLIC GROUP DELAY (ns/MHz <sup>2</sup> )	TOTAL GROUP DELAY (ns)
<b>21.4 MHz FM DEMODULATORS</b>					
IFDMLIM-21.4-6-1.5-I/O	6	1.5	-	-	4
IFDMLIM-21.4-8-2.0-I/O	8	2	-	-	5
IFDMLIM-21.4-10-2.5-I/O	10	2.5	-	-	5
<b>30 MHz FM DEMODULATORS</b>					
IFDMLIM-30-8-1.2-I/O	8	1.2	-	-	4
IFDMLIM-30-10-1.5-I/O	10	1.5	-	-	4.5
IFDMLIM-30-15-2.0-I/O	15	2	-	-	5
<b>70 MHz FM DEMODULATORS</b>					
IFDMLIM-70-10-0.5-I/O	10	0.5	0.04	0.01	-
IFDMLIM-70-20-0.75-I/O	20	0.75	0.05	0.04	-
IFDMLIM-70-30-1.5-I/O	30	1.5	0.03	0.007	-
IFDMLIM-70-30-1.0-I/O	30	1	0.025	0.006	-
IFDMLIM-70-36-1.25-I/O	36	1.25	0.03	0.006	-
IFDMLIM-70-36-1.0-I/O	36	1	0.03	0.006	-
IFDMLIM-70-40-1.25-I/O	40	1.25	0.04	0.006	-
<b>140 MHz FM DEMODULATORS</b>					
IFDMLIM-140-20-0.75-I/O	20	0.75	0.05	0.04	-
IFDMLIM-140-30-0.75-I/O	30	0.75	0.025	0.006	-
IFDMLIM-140-36-1.25-I/O	36	1.25	0.03	0.006	-
IFDMLIM-140-40-1.25-I/O	40	1.25	0.04	0.006	-
IFDMLIM-140-50-1.5-I/O	50	1.5	0.04	0.006	-
<b>160 MHz FM DEMODULATORS</b>					
IFDMLIM-160-20-0.75-I/O	20	0.75	0.05	0.04	-
IFDMLIM-160-30-0.75-I/O	30	0.75	0.025	0.006	-
IFDMLIM-160-36-1.25-I/O	36	1.25	0.03	0.006	-
IFDMLIM-160-40-1.25-I/O	40	1.25	0.04	0.006	-
IFDMLIM-160-50-1.5-I/O	50	1.5	0.04	0.006	-
IFDMLIM-160-60-1.8-I/O	60	1.8	0.04	0.006	-

\* I = Input impedance; O = Output impedance.

For impedance of 75 ohms, I or O = 7; for impedance of 50 ohms, I or O = 5.

## COMMON ELECTRICAL SPECIFICATIONS

Input impedance .....	50 or 75 ohms
Input return loss .....	20 dB minimum
Input level .....	-5 to +8 dBm (see Options)
Baseband output frequency response.....	10 Hz to 6 MHz, $\pm 0.25$ dB maximum
	10 Hz to 10 MHz, $\pm 0.5$ dB maximum
Demodulation sensitivity .....	40 mV/MHz nominal (see Options)
Output impedance .....	50 or 75 ohms
Output return loss .....	26 dBm minimum to 10 MHz

### PRIMARY POWER REQUIREMENTS

Current/voltage .....	250 mA @ +15 volts
	60 mA @ -15 volts

## MECHANICAL SPECIFICATIONS

### PHYSICAL

Dimensions .....	6.6" x 2.9" x .75"
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### CONNECTORS

Input/output.....	SMA female
DC power, housing ground.....	9-pin male, D type

## OPTIONS

<b>IFDM1</b>	Demodulation sensitivity (customer to specify).
<b>IFDM2</b>	IF input level (customer to specify).
<b>IFDM3</b>	IF baseband level adjust (customer to specify).
<b>IFDM4</b>	IF input center frequency (customer to specify).