

MMP18441 4.0 TO 18.0 GHz COUGAR MIXERPAK DOUBLE-BALANCED MIXER

Typical Values	MMP18441
LO & RF	4.0 - 18.0 GHz
IF	DC - 4.0 GHz
Third Order I.P.	+12.0 dBm
Conversion Loss	6.0 dB
LO Drive (nominal)	+10.0 dBm
High Isolation (LO to RF)	35.0 dB
Cougar MixerPak - Seam Sealed Hermetic Package	

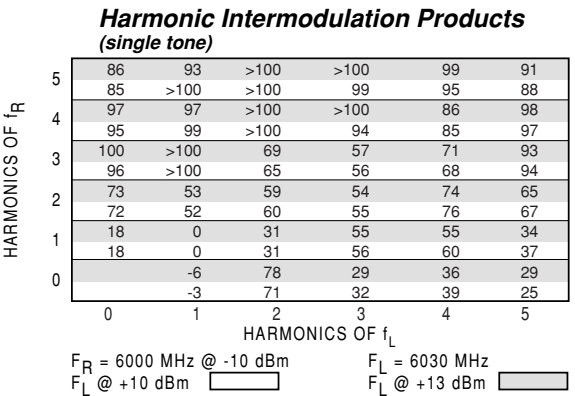
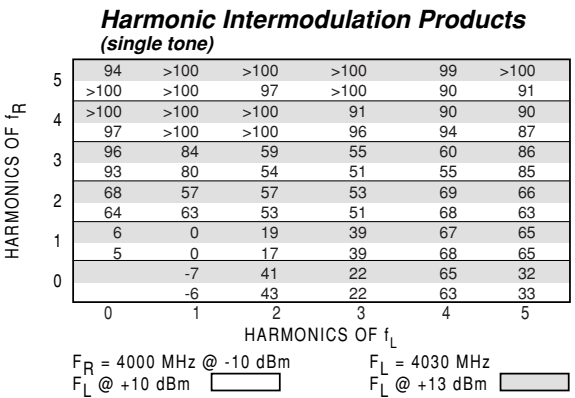
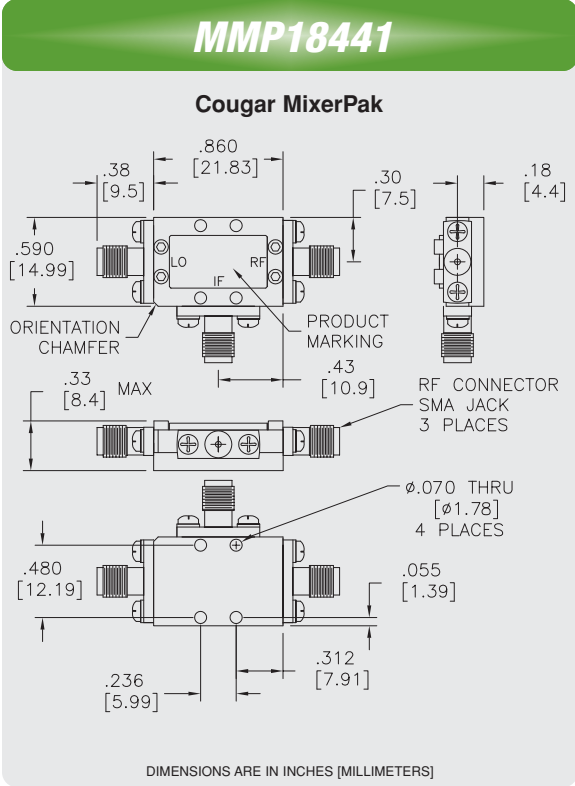
SPECIFICATIONS*

Parameter	Port	Frequency (GHz)	Guaranteed -55 to +85 °C		
			Typ. (dB)	Max. (dB)	
SSB Conversion Loss and SSB Noise Figure	f_R	5.0 to 17.0	5.5	6.5	
	f_L	5.0 to 17.0	5.5	6.5	
	f_I	DC to 2.0	5.5	6.5	
	f_R	4.0 to 18.0	7.0	8.0	
	f_L	4.0 to 18.0	7.0	8.0	
	f_I	DC to 2.0	7.0	8.0	
	f_I	2.0 to 4.0	8.5	9.5	
Conversion Comp. Desensitization	f_R	Level = +2 dBm	-	1.0	
	f_{R2}	Level = 0 dBm	-	1.0	
Isolation			Typ. (dB)	Min. (dB)	
	f_L at R	f_L	4.0 to 10.0	40	30
	f_L at I	f_L	4.0 to 10.0	25	15
	f_R at I	f_R	4.0 to 10.0	30	12
	f_L at R	f_L	10.0 to 18.0	30	20
	f_L at I	f_L	10.0 to 18.0	30	22
f_R at I	f_R	10.0 to 18.0	45	30	
Third Order Intercept		LO = +10 dBm	+12 dBm	-	

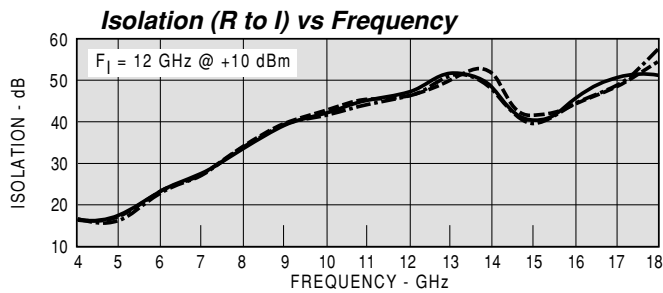
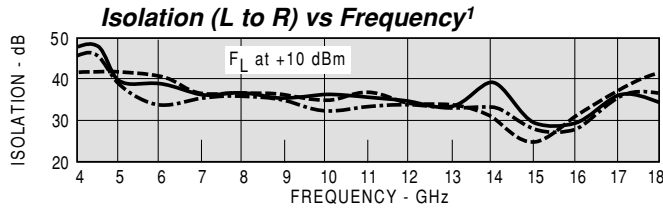
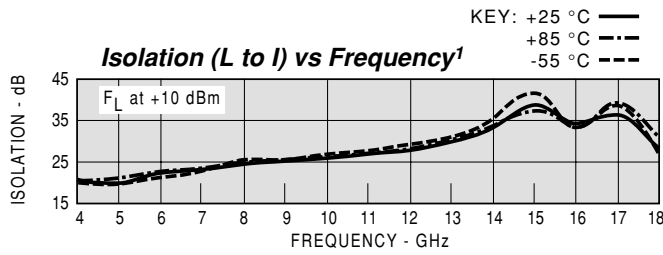
* Measured in a 50-ohm system with nominal LO drive of +10 dBm as a downconverter.

ABSOLUTE MAXIMUM RATINGS

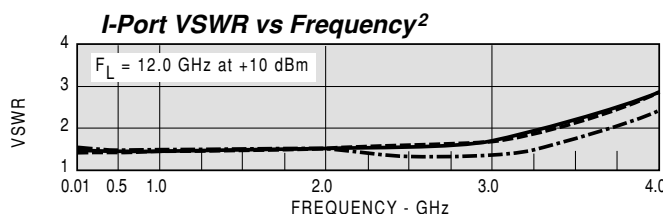
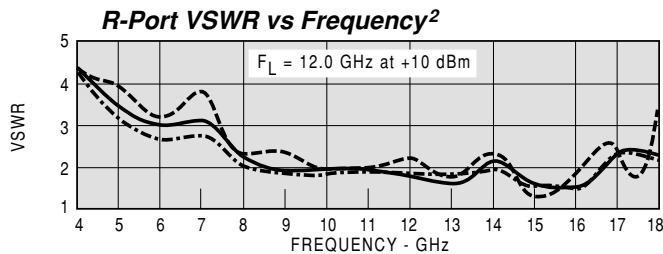
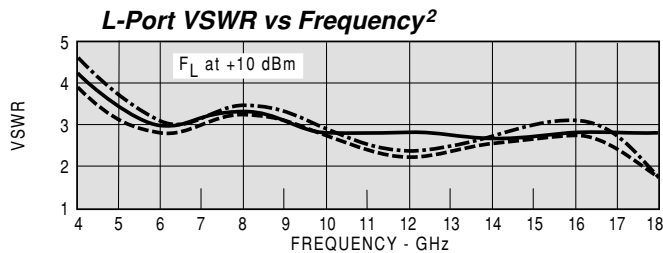
Storage Temperature	-65 to +150 °C
Peak RF Input Power All Ports	+22 dBm @ 25 °C
	derate to +17 dBm @ 100 °C



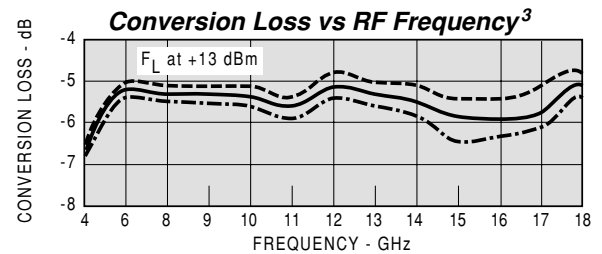
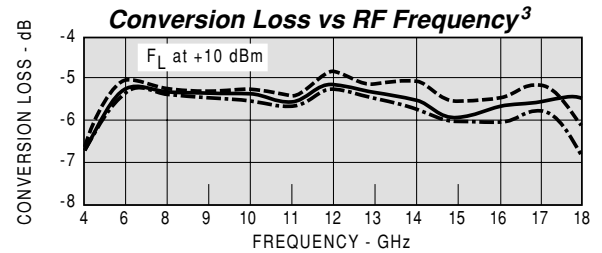
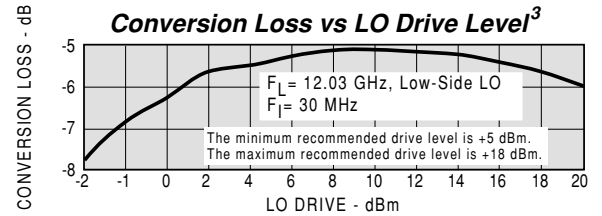
TYPICAL PERFORMANCE



¹Level of the f_L signal fed through to the R- and I-ports with respect to the level of the f_L signal at the L-port.



²VSWR of the I- and R-ports in a 50-ohm system. Some variation in the R-port VSWR will occur as a function of the L-port frequency as shown above.



³Conversion loss of the mixer when used in an SSB system. The frequency ordinate refers to the R-port (f_R) with f_I at 30 MHz.

