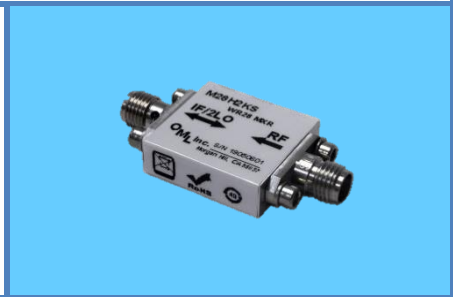




DESCRIPTION

The M28H2KS is a two-port extended Ka band sub-harmonic pumped mixer. The mixer has a typical 10 dB conversion loss over the 24 GHz to 40 GHz RF input frequency range. It has an IF frequency range of DC to 10 GHz minimum and a LO operating frequency range of 10 to 20 GHz. A nominal +13 dBm LO drive level is required. A diplexer is needed to separate the LO frequencies and IF frequencies at the LO/IF common port.



HIGHLIGHTS

- Extended Ka Band - 24 to 40 GHz
- Low Conversion Loss - 10 dB typical
- Wide IF bandwidth - 10 GHz minimum
- RoHS compliant

APPLICATIONS

- Communication
- Test and Instrumentation
- Radar

ELECTRICAL AND PERFORMANCE SPECIFICATIONS (+25°C)



Electrical Characteristics ¹	MIN	TYP	MAX
System Operating Frequency (GHz)	24	--	40
LO/IF Common Port Frequency (GHz)	DC	--	20
LO Frequency (dB)	10	--	20
LO Power(dB)	+8	+13	+17
IF Frequency (GHz)	DC	--	10
Conversion Loss (dB) ²	--	10	--
Input 1 dB Compression (dBm)	--	-3	
Combined RF & LO Power Level	--	--	+20
Operating Temperature Range	+20°C	+25°C	+30°C
Storage Temperature Range	0°C	--	+50°C

Module Characteristics ¹	Description
RF Port	2.92 mm(f)
LO/IF Port	SMA (f)
Size (L x W x H) ³	0.83"x 0.75" x 0.25" (21.0 mm x 19.1 mm x 6.4 mm)
Weight	≤ 1 oz (28 g)

¹ Specifications are typical and subject to change without notice

² At 1 GHz IF. Included OML diplexer DPL921 & Measured with Keysight PNA-X N5247A [Scalar Mixer/Converter Measurement Class](#) function

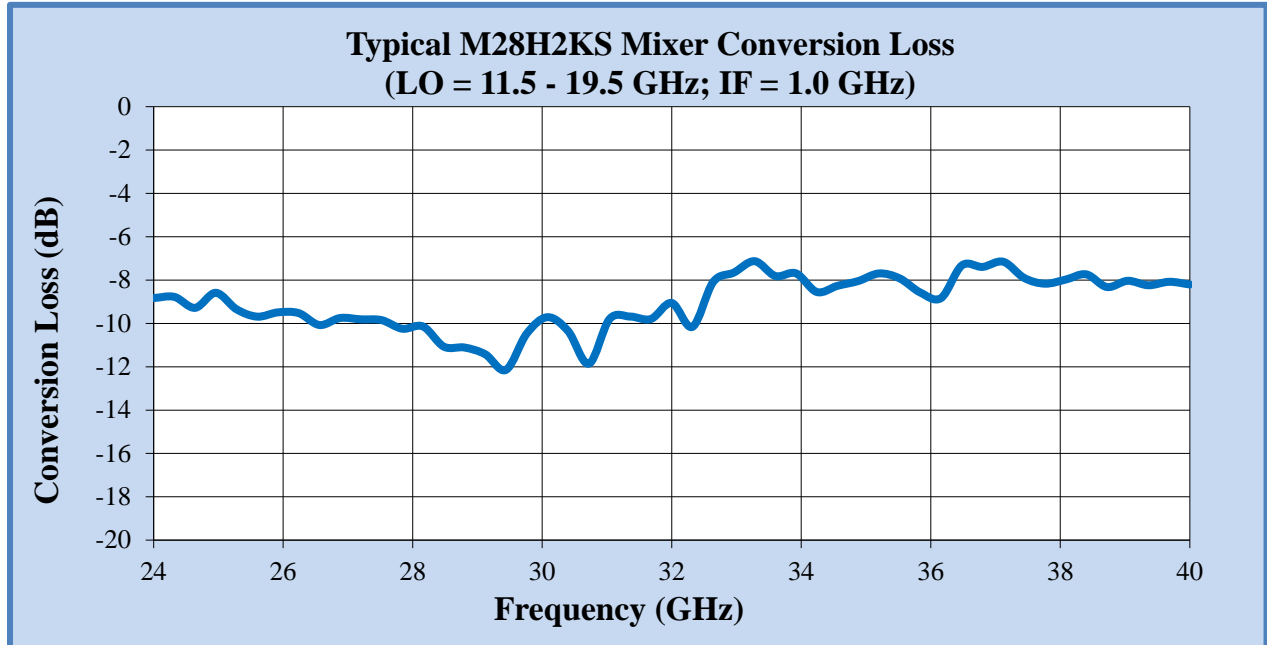
³ Excluded port connectors



TYPICAL PERFORMANCE

The following typical performance is possible with the M28H2KS Sub-Harmonic Pumped Mixer connected to OML diplexer, DPL921.

LO Power = +12.5 dBm



ORDER INFORMATION

Model Number	Description
M28H2KS	WR-28 Sub-Harmonic Pumped Mixer, 24-40 GHz
Accessories:	
DPL921	Diplexer, High pass 9 to 21 GHz, Low pass DC to 6.5 GHz
DPL818	Diplexer, High pass 8 to 18 GHz, Low pass DC to 5 GHz

MECHANICAL DIMENSIONS (If necessary, contact OML for more detailed drawings)

