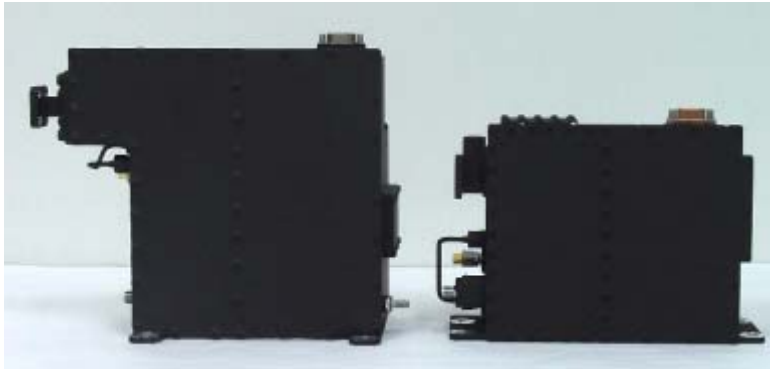


New Generation Ka-band Downconverter

Mass Reduction and Compact Size Achieved
by Application of Multi Chip Module Technology.



Previous Design

New Downconverter

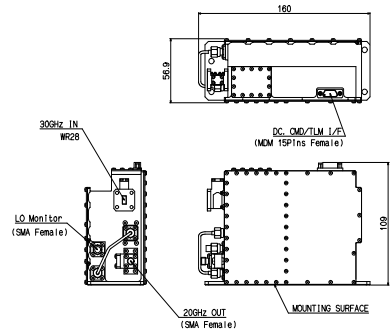


Photo of New Downconverter

Features

- o Low mass of 630g (max)
- o High performance and reliability backed up by extensive heritage
- o Outstanding Noise Figure performance of 7dB (max)
- o Heritage of over 1,600 converters, which includes 275 Ka-Band units

Outline Drawing



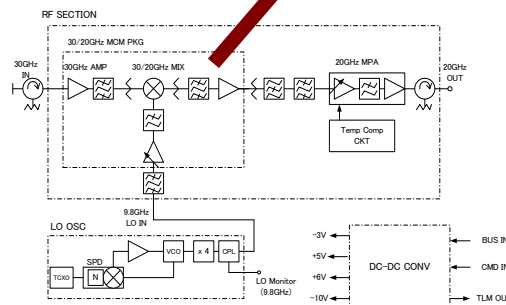
Specification Table

Parameter	UNIT	Typical Performance
RF FREQ	GHz	29.5 to 30
LO FREQ	GHz	9.8
IF FREQ	GHz	19.7 to 20.2
BW	MHz	500
Gain	dB	43
NF	dB	4.5
ICP (OUT)	dBm	+32
Gain Flatness		
Full BW	dBp-p	0.2
In-Band Spurious	dBc	-70
2RF-4LO	dBc	-50
2 x LO	dBm	-11
Random Phase Noise		
Offset Frequency		
10Hz	dBc/Hz	-40
100Hz	dBc/Hz	-70
1KHz	dBc/Hz	-90
10KHz	dBc/Hz	-100
100KHz	dBc/Hz	-105
1MHz	dBc/Hz	-115
10MHz	dBc/Hz	-130
DC Power Consumption	W	6.8
Temp	°C	-20 to +76
Mass	Kg	0.63
OSC Type		TCXO

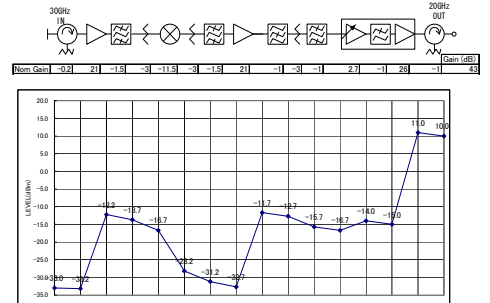
Photo of MCM Package



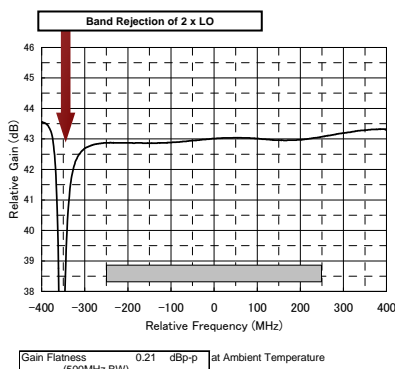
Block Diagram



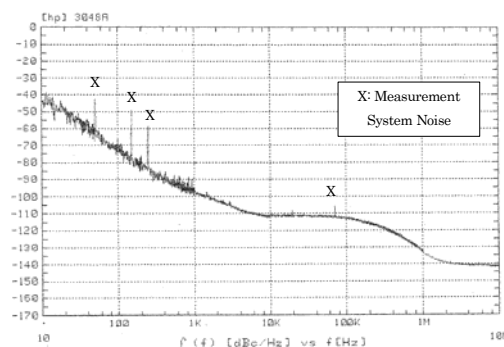
Level Diagram



Gain / Gain Flatness



Phase Noise of 9.8GHz LO OSC



In-Band Spurious Outputs

