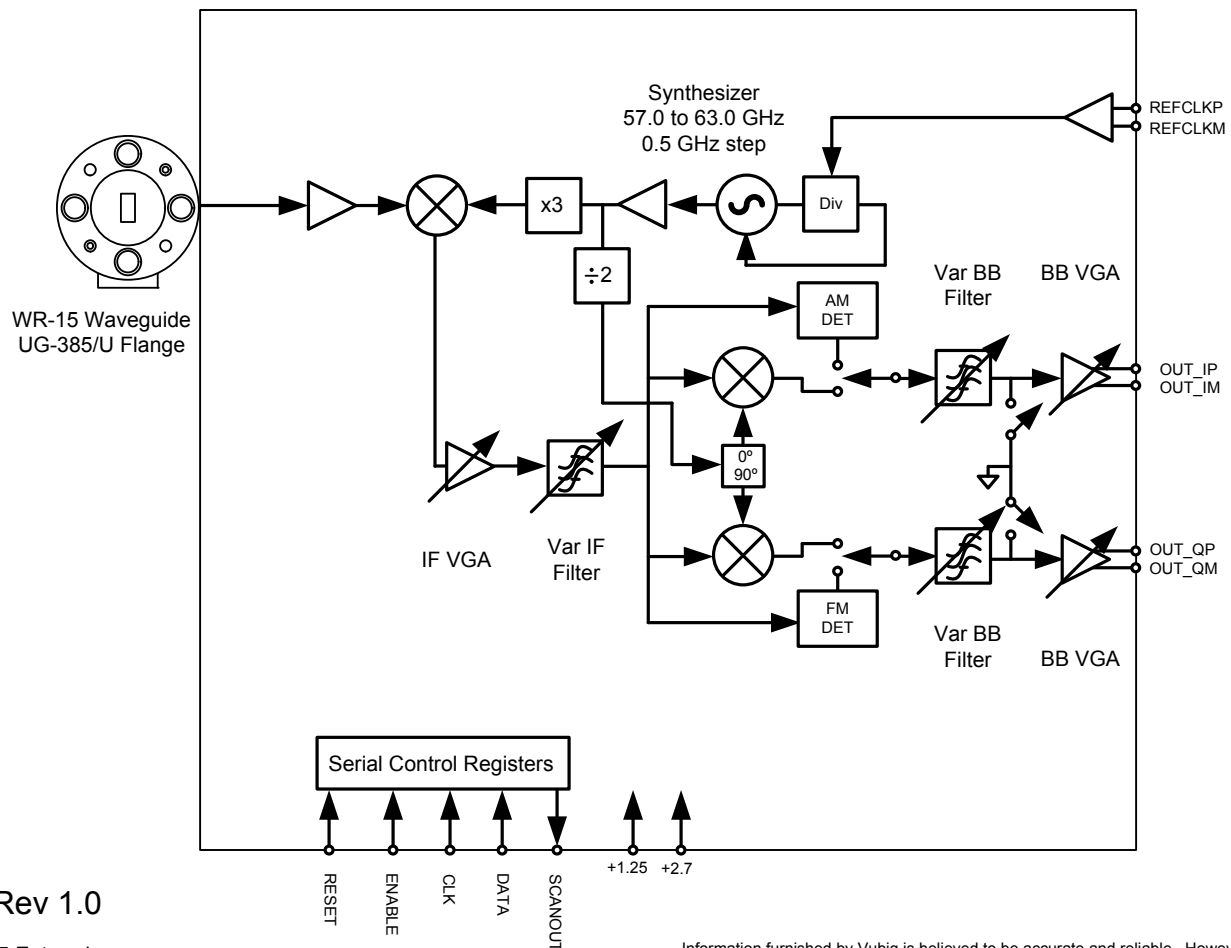
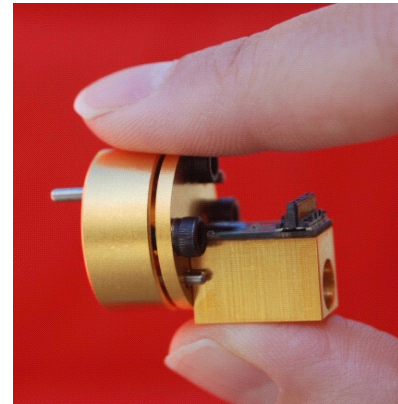


Technical Overview

Features

- Complete millimeter wave receiver
- WR-15, UG-385/U flange
- Operates in the 57 to 64 GHz unlicensed band
- 6 dB noise figure
- > 500 MHz baseband channels
- I/Q, AM, FM detectors
- > 1.5 GHz detection bandwidth at 60 GHz
- On chip synthesizer covers 57.0 to 63.0 GHz with 0.5 GHz step size
- Reference clock 285.714 MHz
- Samtec ST4-20 interface connector for power, digital control, baseband and reference clock



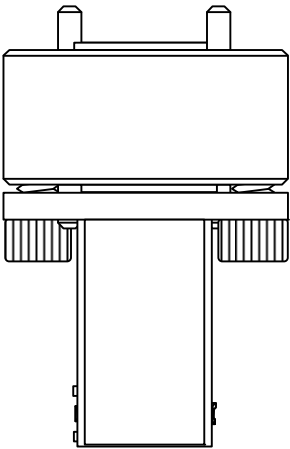
Rev 1.0

65 Enterprise
 Aliso Viejo, CA 92656, U.S.A
 Telephone 949-226-8482
 FAX 815-572-0386

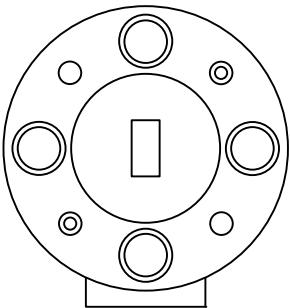
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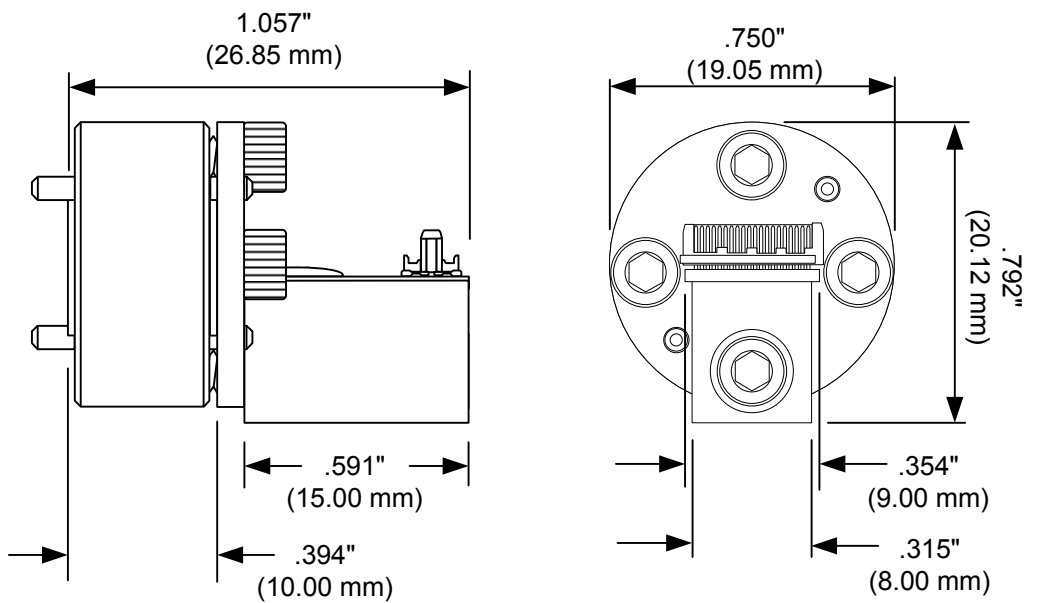
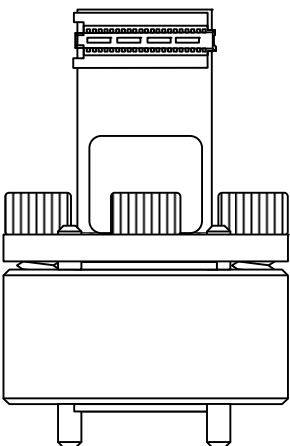
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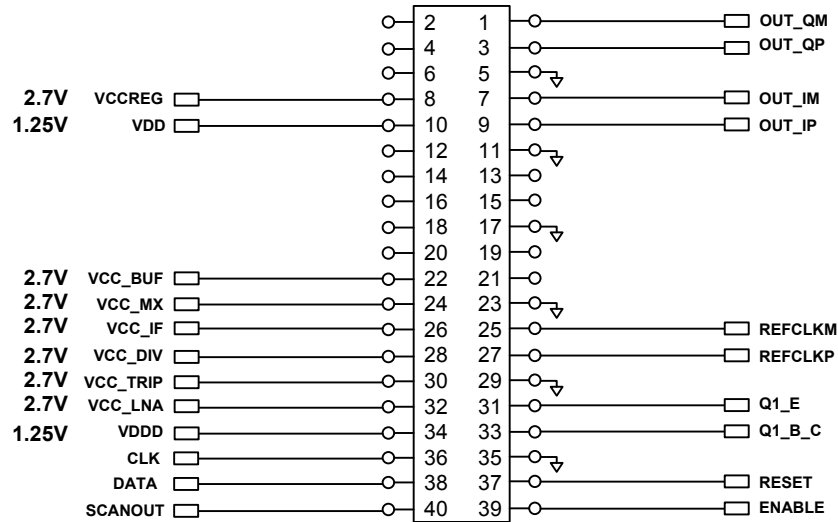
WR-15 UG-385/U Flange



Samtec ST4-20 Connector



Samtec ST4-20



Mating Connector:
Samtec SS4-20-3.00-L-D-K-TR

Power and Signal Specifications

Parameter	Pin Name	Min	Typ	Max	Unit	Comment
Reference Clock	REFCLKM REFCLKP	-3	0	+3	dBm	100 ohm differential 285.714 MHz
I/Q Baseband Output	OUT_IP, OUT_IM OUT_QP, OUT_QM		100		mVPP	100 ohm differential
Digital Control Inputs	RESET, CLK, DATA, ENABLE		1.25		V	1.25V CMOS
Digital Control Output	SCANOUT		1.25		V	1.25V CMOS
+1.25	+1.25	1.19	1.25	1.31	V	
+2.7	+2.7	2.57	2.7	2.83	V	
+1.25 supply current			11		mA	
+2.7 supply current			195		mA	
Temperature Sensor	Q1_E Q1_B_C					2N3904 connected as diode (E, B-C)

Performance Specifications

Parameter	Min	Typ	Max	Unit	Comment
Gain	56		70	dB	IF Atten and BB Adj
IF Gain Adjustment Range		20		dB	IF Atten adjustment
IF Filter Q Tuning Range	800		1500	MHz	IF Filter Q adjustment
Noise Figure		5.5	7	dB	
Image Rejection		>30		dB	
P1dB		-37		dBm	
IIP3		-30		dBm	
Phase Noise		-113		dBc/Hz	10 MHz
I/Q Balance Phase		+/- 3		degrees	
I/Q Balance Amplitude		+/- 1		dB	