Datasheet

Description

Passive mm-wave (PMMW) imaging provides the unique capability to create high resolution images in low visibility conditions (e.g. through clothing, clouds or fog) and therefore useful for such an applications as concealed weapon detection and airplane landing. Passive imagers operate by detecting naturally emitted thermal (black body) radiation from an object. Products available up to 325GHz.

Features

• High performance radiometric sensor at 220GHz

Applications

• Atmospheric research
• Meteorology
• Radio propagation studies
• Instrumentation
• Imaging

Specification	Unit	Min	Typ	Max
Operating Frequency	GHz		220	
RF Bandwidth	GHz		10 (±5)	
LO Source Frequency	GHz		110	
Pre Detection Bandwidth	GHz		0.02 - 5 (±10%)	
Centre Frequency Accuracy	MHz		<1	
Radiometric Dynamic Range	K	3		350
Radiometric Sensitivity	K		<1.7	
Integration	ms		5	
System Noise Figure (DSB)	dB		10	
Conical Antenna Gain (dBi)	dB		2.5	
Voltage Output	V		0.1-10	
Detector Type			Square law	
Conical Antenna Flange			UG-387/UM	
Waveguide Flange			UG-387/UM	
Video Output Connector			SMA(f)	
Power Requirements			+15 V @ 1500 mA	
Weight	kg		3.5	
Dimensions	mm		300 x 200 x 70	

Note 1: Different centre frequency and IF bandwidth available.
Contact factory for information.

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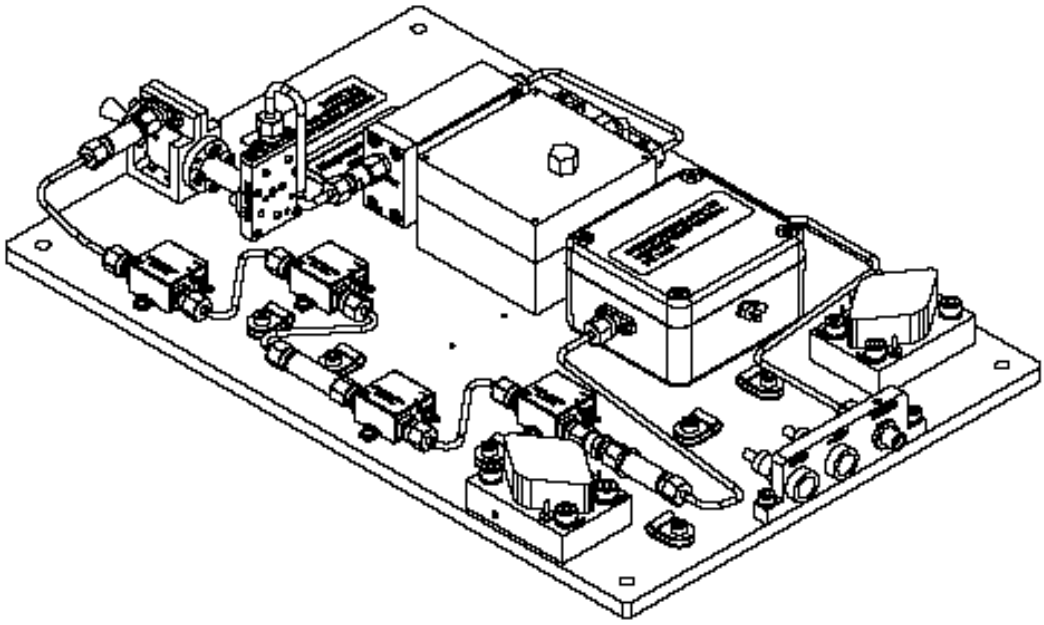

Figure 1. 220 GHz – RAD - 0001 angle view.

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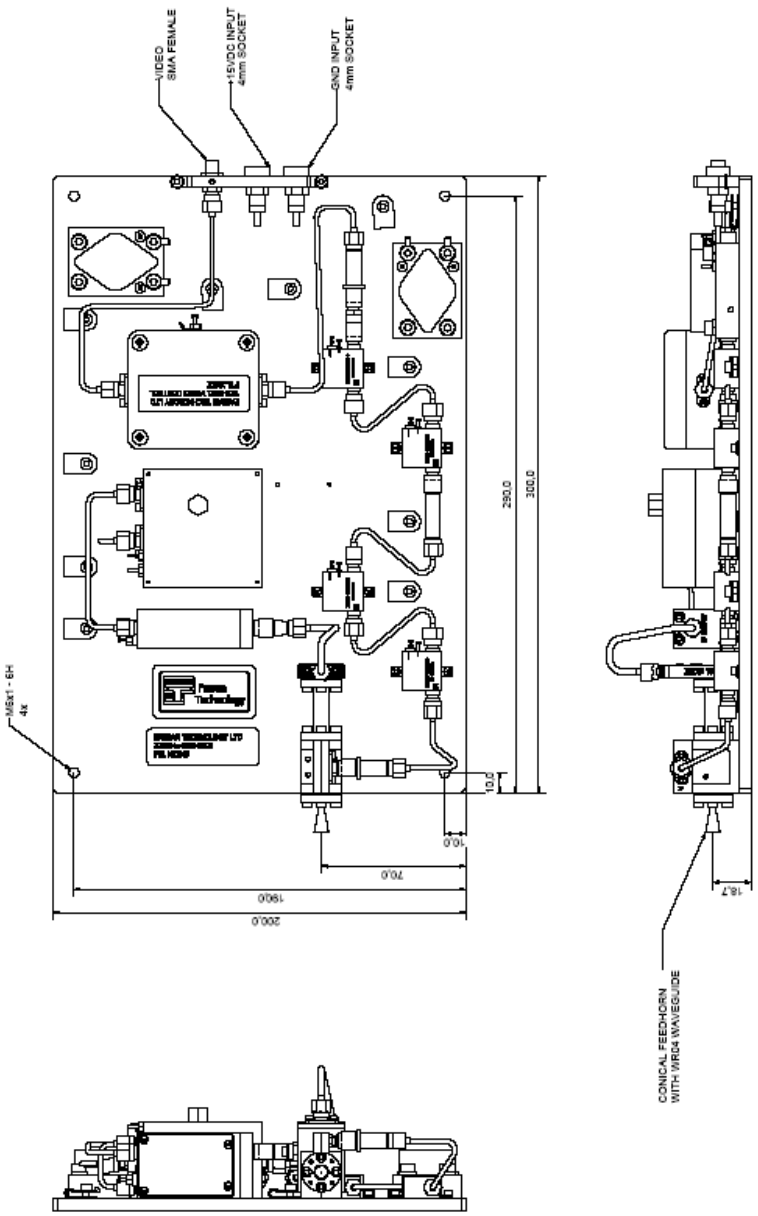

Figure 2. 220 GHz - RAD - 0001 top and side view.

Note 2:

Farran Technology reserves the right to change, without notice, the characteristic data and other specifications applied to this product. The product may be subject to Irish export restrictions.

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