140 GHz Imaging Front End



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. A low attenuation atmospheric window at 140 GHz makes this frequency an ideal candidate for PMMW systems. Passive imagers operate by detecting naturally emitted thermal (black body) radiation from an object.

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Features

- Direct detection no LO signals present
- Low noise figure for high sensitivity
- Integrated video amplification

Applications

- · Airport security screening
- Material composition
- Remote sensing
- Medical
- Metrology
- · Metal detection in food

Specification	Unit	Min	Тур	Max
Frequency	GHz	140		140
Gain	dB		50	
Noise Figure	dB		8	
Sensitivity	mV			1200
Physical Size		125 x 28 x 13mm (TBD)		
Mass		85g (TBD)		
Power Consumption	W	0.25 (TBD)		



