



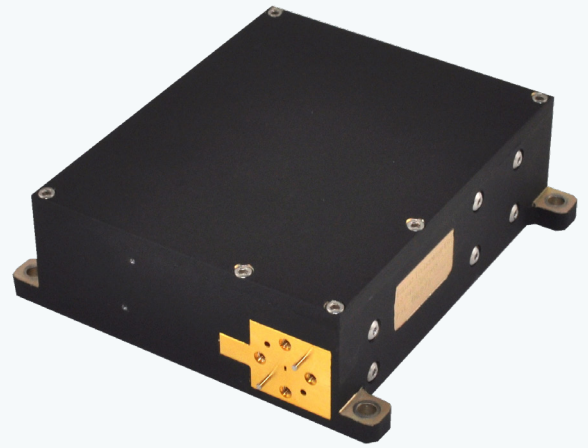
WR-05 Imaging Front End/ Radiometer 183 GHz: PMMW-05-0001

Farran's 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 325 GHz.

Key Facts:

- High performance radiometric sensor at 183 GHz



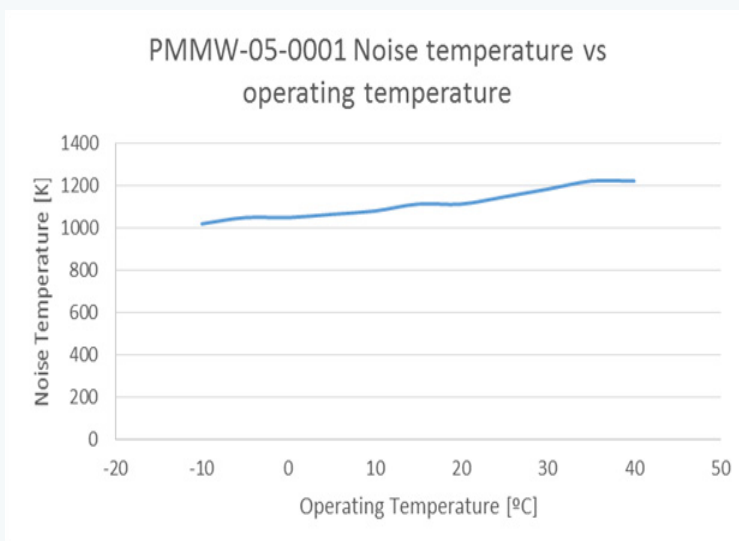
APPLICATIONS

- Atmospheric research
- Meteorology
- Radio propagation studies
- instrumentation
- Imaging



ACCESSORIES

- User manual



"The sensitivity and stability performance matched, but actually exceeded, all our system performance requirements. The resulting system operation and measurements confirmed the exceptional performance of Farran's PMMW."

Applications Engineer, European Aerospace, Defence and Security Company



Product Specification

| System Specification | Unit | Value |
|-------------------------------|------------------|----------------------------------|
| Frequency of operation | GHz | 183.3 |
| RF Bandwidth | GHz | 16 (± 8) |
| LO Source Frequency | GHz | 91.65 |
| Noise Temperature | K | < 1200 @ +25°C |
| System Gain | dB | 30 |
| Gain Flatness | dB/ GHz | 1.5 |
| LO Leakage | dBc | < -50 |
| DRO Frequency Accuracy @ 25°C | MHz | ± 0.5 |
| DRO Frequency Stability | \pm ppm/ °C | 2 |
| RF Port | - | WR-05, UG-387/UM |
| IF Port | - | SMA Female |
| Power Requirements | - | +12 V @ 170 mA, +5 V @ 700 mA |
| Weight | kg | <0.6 |
| Dimensions | mm | 110 x 90 x 35 |
| Coating Emissivity | - | 0.9 |
| Coating Solar Absorption | - | >95 |



SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance
- Application Support
- Hardware Support

For more information on any of our products or services please visit our website: www.farran.com



TECHNICAL SUPPORT

- Technical support provided directly by our knowledgeable and friendly engineers.
- Support for pre- and post-purchase: system configuration, installation and troubleshooting.



PRODUCT INSIGHTS

- For more product insights register at www.farran.com/customer
- Additional information: test data, CAD drawings and 3D models available.



WARRANTY

- Standard 1 year warranty.

Specification Definitions

Nominal value (nom.) – ensured by design, not tested. **Measured value (min, max)** – expected and warranted product performance obtained from the actual measurements of product sample. **Non-traceable measured value (n. trc. meas.)** – expected product performance obtained from the actual measurements of a product sample by means of using Farran's own equipment and methods. Traceable only to Farran laboratory equipment. **Typical data (typ.)** – value that represents the product specification met over 90% of bandwidth or a mean value. **Specifications without limits** – represent the warranted product performance; with values of no or a negligible deviation from the given value and as such have a secondary impact on the product performance.

