



NanoRF 75 OHM OPTICAL HYBRID MODULE

High Speed, High Density

TARGET MARKETS

- Missile Defense
- UAVs
- Ground Defense
- Military Aerospace
- Military Marine
- Space

APPLICATIONS

- Radar
- Electronic Warfare
- Missile Guidance
- Tactical Communication

TE Connectivity's (TE) new 75 ohm NanoRF optical hybrid module offers advanced performance in many demanding aerospace and defense applications by providing high speed and density in a small form factor. This product addresses the emerging need for higher speed video processing (such as SDI), especially in new sensor systems, including alignment to SOSA (Sensor Open Systems Architecture). Next gen video capture requires a 75 ohm coax solution.

Features and Benefits

- Higher speed video solution
- High density package with open standard
- Floating inserts on backplane side with alignment features provide reliable, stub-free mating
- Supports cabled MT and Edge Mount transceivers allowing additional modularity and options for customers
- Multiple slot profiles and connector modules being added to VITA 65.0 and 65.1 standards allow intermateability, interoperability among suppliers of VPX compliant hardware for a robust supply chain
- No special tooling needed for application and rework

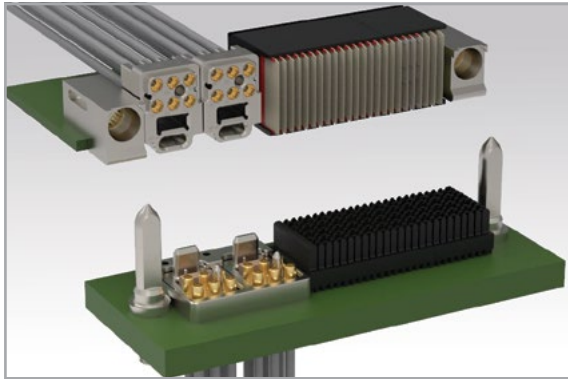
NanoRF 75 Ohm Optical Hybrid Module

ELECTRICAL DATA

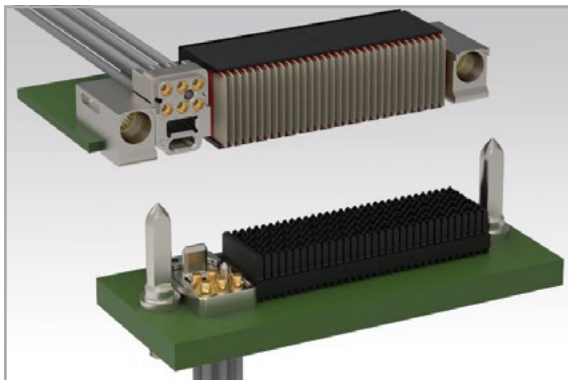
- **Rated Max Frequency:** 18 GHz*
- **Isolation, Cable-to-Cable:**
 - ≥ 100 dB from 3 to 18 GHz
 - ≥ 120 dB from 30 MHz to 3 GHz
 - ≥ 140 dB from 3 to 30 MHz
- **Impedance:** 75 Ohm
- **VSWR, Mated Pair:**
1.10:1 Max to 18 GHz
- **Insertion Loss, Mated Pair:**
≤ 0.16 sqrt f (GHz) db Maximum (mated pair)

* Maximum frequency response is currently being restricted by 75 Ohm testing limitations.

FULL MODULE



HALF MODULE



MECHANICAL DATA

- **Mating Cycles:** 500 MIN
- **Operating Temperature:** -55°C to +125°C
- **Conformable Cable Diameter**
 - Outer Conductor: .086"
 - Center Conductor: .0113"
- **Pitch Between Contacts:** .155"

SUPPORTING DOCUMENTATION

- **NanoRF Product Specification:**
108-163037
- **NanoRF Qualification Test Report:**
501-134137
- **NanoRF Instruction Sheet:**
408-163038

PART NUMBERS

Part Number	Description
Modules	
2402889-1	Half Backplane Module
2402888-1	Plug-In Module (Cabled MT)
2432281-1	Plug-In Module (Transceiver Attach)
2415676-1	Full Backplane Module
Contacts	
2401218-1	Pin Contact
2401219-1	Socket Contact

Additional information:

NanoRF - www.te.com/nanorf

Fiber Optics - www.te.com/nanoRF-optical

Embedded Computing - www.te.com/embeddedcomputing

te.com/nanorf-75ohm

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