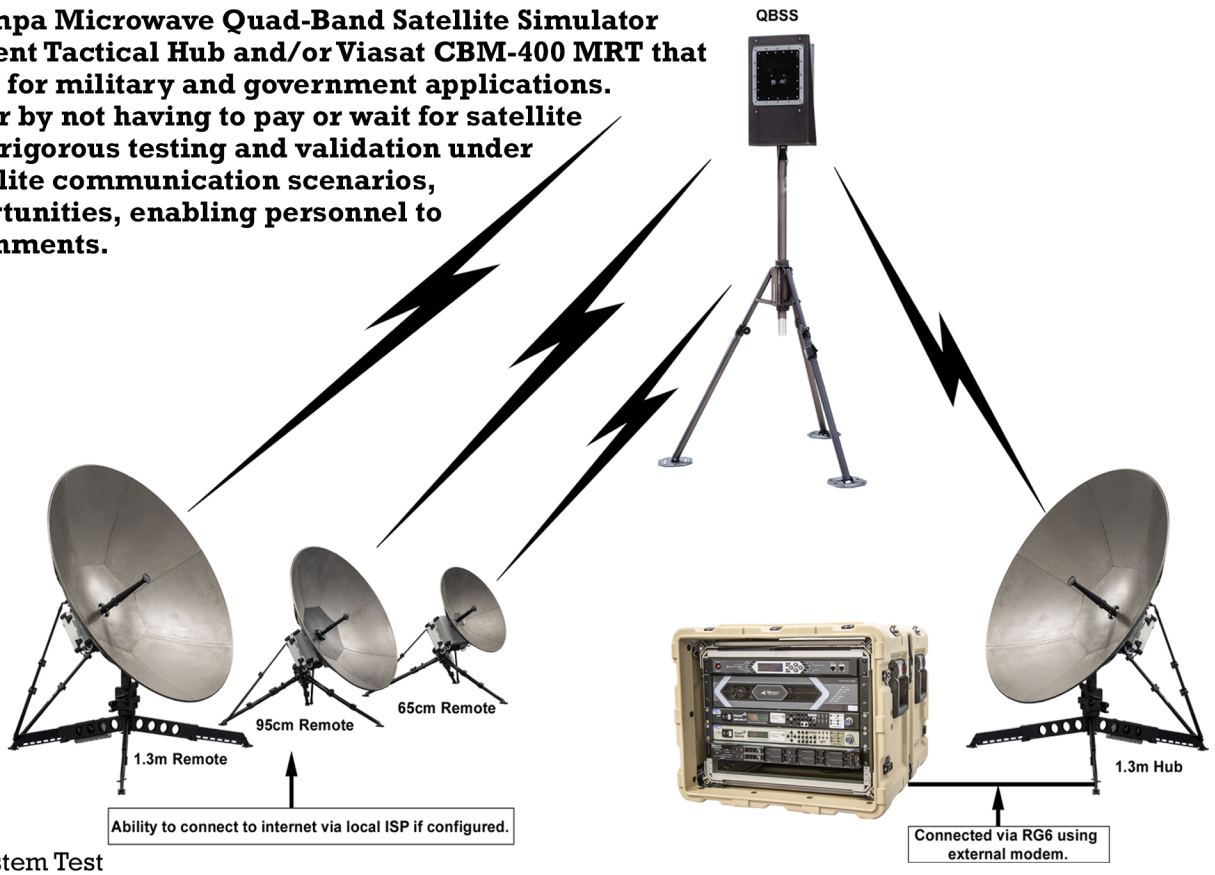
TAMPA MICROWAVE™
A THALES COMPANY

Connecting heroes - Protecting lives

TerraNet



TerraNet integrates a Tampa Microwave Quad-Band Satellite Simulator with an iDirect Government Tactical Hub and/or Viasat CBM-400 MRT that offers a powerful solution for military and government applications. TerraNet benefits the user by not having to pay or wait for satellite time. TerraNet allows for rigorous testing and validation under controlled, realistic satellite communication scenarios, enhancing training opportunities, enabling personnel to train in simulated environments.



Features:

Testing and Validation
- Unlimited Ad hoc System Test
- Ensuring Optimal Performance
- Controlled Scenarios

Training and Skill Development
- Realistic Training
- Skill Enhancement
- Personnel Preparedness

Maintenance
- Efficient troubleshooting
- Remote Monitoring
- Proactive Maintenance

Security Assessment
- Enhanced Security Measures
- Threat Simulation
- Interference Scenarios

Flexable Solution
- Terminal Agnostic
- TDMA/FDMA
- Test Multiple Bands Simultaneously

QBSS Specifications:

RF Input Signals:
- C-Band: 5.85-6.425 GHz @ Nominal -15 dBm
- X-Band: 7.9-8.4 GHz @ Nominal -15 dBm
- Ku-Band: 14.0-14.5 GHz @ Nominal -15 dBm
- Ka-Band: 30.0-31.0 GHz @ Nominal -15 dBm

*Input levels are dependent on dish size, distance to the simulator, and transmitter power.

RF Output Signals: Band Selection Per External Controller Command
- C-Band: 3.625-4.20 GHz @ Input Level -30 dB Attenuation Setting
- X-Band: 7.25-7.75 GHZ @ Input Level -30 dB Attenuation Setting
- Ku-Band: 10.95-11.2 GHz @ Input Level -30 dB Attenuation Setting
- Ka-Band: 20.2-21.2 GHz @ Input Level -30 dB Attenuation Setting

TM-PSB-TN Rev. C

www.tampamicrowave.com
+1 (813) 855-2251

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Data contained within this document is a summary and subject to change at any time at Tampa Microwave's discretion.



iDirect Government Tactical Hub Specifications:

Symbol Rates:
- Downstream: DVB-S2 ACM up to 45 Msps
- Upstream: Adaptive up to 29 Msps
  - 1-4 Return Channels on DLC-R
  - Configurable Carriers for Simultaneous Family of Terminals Operations (Micro, Lite, Medium, Heavy)

Network Characteristics:
- Virtualized Server Environment
- FIPS 140-2 Level 3 (#3056)
- Over 1000 Simultaneous Remote Terminals

Optional Capabilities via Software License:
- 8 Channel Return: 4 Additional Upstream Carriers
- TRANSEC: 4 to 8 Channels
- CSIR Interference Mitigation: 4 or 8 Channels

Viasat CBM-400 MRT Specifications:

LINKWAY® TRANSMITTER AND RECEIVER

Symbol Rates: Up to 10 Msps
Data Rates: Up to 14 Mbps
Modulation (Code Rates):
- BPSK (1/3, 1/2, 2/3); 2x and 4x spreading
- QPSK (1/2, 2/3, 3/4, 6/7)
- 8PSK (3/4, 4/5, 6/7)

FEC: DVB-RCS Based
TRANSEC: AES 256 FIPS 140-2 Level 2 Certified
CBM-400/E:
- CBM-400/E variant serves as 1U combined NCC and MRT

Optional Features:
- Commercial Key Fill, ACSM, Resilient mode, OSPFv2

EBEM TRANSMITTER AND RECEIVER IAW STANAG 4486

Symbol Rates: Up to 60 Msps
Data Rates: Up to 155 Mbps
Modulations: BPSK, QPSK, 8-PSK, 16-PSK
FEC/Code Rate: Turbo 1/2, 2/3, 3/4, 7/8, 19/20
TRANSEC: AES 256 FIPS 140-2 Level 2 Certified
Supported Features:
- Information Throughput Adaptation, Full-Duplex (SMAT) and Simplex (PKI) Encryption, Automatic Uplink Power Control, Ethernet Bridge Mode, PPPoE

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