REMEC BROADBAND WIRELESS

BridgeWave COMMUNICATIONS

NAVIGATOR ST

NAVIGATOR ST Single Transceiver All-Outdoor Licensed Microwave Gigabit Radio

NAVIGATOR ST is a single-transceiver all outdoor, IP radio system operating from 6GHz to 42GHz, modulations to 4096QAM, and ultra-wide bandwidth operation to 112MHz ETSI and 160MHz ANSI. NAVIGATOR ST can achieve capacities up to 2.75Gbps per radio without compression.

NAVIGATOR ST can operate with either a single carrier or dual sub-carriers to efficiently increase capacity without requiring any additional equipment.

NAVIGATOR ST is easily and inexpensively field convertible to different sub-bands via user friendly customer replaceable diplexers. Radio sparing only needs to include the base radio resulting in no longer a need to spare radios in specific sub-bands.

NAVIGATOR ST is an ideal, highly integrated all-outdoor radio for the most demanding applications.

Performance

- Up to 2.75 Gbps per radio using two sub-carriers without compression
- Single carrier or dual sub-carrier operation to efficiently increase capacity without adding more equipment
- QPSK to 4096QAM
- Ultra wide bandwidth operation to 160MHz ANSI and 112MHz ETSI
- 1+0, 1+1 HSB, and 2+0 operation
- Space Diversity and Frequency Diversity available
- Built-in Advanced Digital Pre-Distortion to drive higher transmission performance
- Customer replaceable diplexers to ease operational logistics and improve system flexibility
- Adaptable antenna interface option supports third party antennas to ease migration and upgrade
- Header and payload compression to further increase capacity
- 2 x 10GbE Ethernet interfaces (optional)
- 2 x CPRI interfaces (optional)
- SyncE and IEEE1588v2
- AES256 encryption
- No-touch WiFi maintenance interface (optional)
- Time based feature licensing available

Applications

Whatever your business or the goals for your network infrastructure, EtherFlex Navigator can play a critical role in backhaul performance, reliability, and security.

- 4G/5G backhaul
- Fiber extension
- Fiber backup
- Leased line replacement
- Small cell backhaul
- Campus connectivity
- Disaster recovery

NAVIGATOR ST SINGLE TRANSCEIVER

Features	
Data Throughput Rate	Up to 2.75Gbps per radio using two sub-carriers without compression or 1.5Gbps per radio using a single carrier
Configurations	1+0, 2+0 ACAP/ACCP, 1+1 HSB, 1+0 SD, 1+0 FD
Frequency Range	6-42GHz
Modulation	QPSK to 4096QAM
Air Interface	Full Duplex FDD
Channel Bandwidths per Carrier	10-160MHz ANSI and 7-112MHz ETSI
Diplexer	Customer replaceable
Tx Power (diplexer output)	Up to 27dBm with Built-In Advanced Digital Pre-Distortion
Interfaces	
Ethernet	1 x 1/2.5G RJ45 (POE), 2 x 1/2.5G SFP or 1 x 1/2.5G RJ45 (POE), 2 x 1/10G SFP+
Console	• USB serial port • WiFi for no-touch maintenance (optional)
Ethernet	
Max Packet Size	16000 bytes (Jumbo Frame)
Ethernet Timing and Synchronization	SyncE (G.8261), IEEE 1588V2 Transparent, Boundary, and Ordinary Clock support
Ethernet Features	• IPv6, IPv4 • L2- 16K MAC Addresses • 4096 VLAN (IEEE 802.1Q) with 1024 VLANs supported concurrently • VLAN tag translation on ingress or egress • Provider Bridging (IEEE 802.1ad, Q-in-Q) • RSTP / MSTP
Ethernet Compression	Interface Gap and Pre-Amble Suppression, Header Compression, Payload Compression
QoS Packet Classification	• DiffServ (RFC 2475) • VLAN PRI (IEEE 802.1Q-2003) • MAC PRI • Port Priority • Port Number, Protocol • MPLS PRI
QoS Packet Scheduling	• Port – Weighted Round Robin (WRR) • Logic Port (cluster) – Weighted Fair Queuing (WFQ) or Strict Priority (SP) • Priority Queue – WFQ, Strict Priority • 8 priority queues per logical port/queue
QoS Congestion Avoidance	Two-rate / three color marking, WRED, Policing, Flow-Control (PAUSE packets, back-pressure)
QoS Traffic Shaping	Configurable
Ethernet Protection	ITU-T G.8032 Ring
Encryption	AES256
OAM	ITU-T Y.1731, IEEE 802.1ag, 802.3ah, Radius, Syslog
MEF Compliance	MEF9 Services Test Suite, MEF14 Traffic Management Test Suite
Mechanical and Environmental	
Input Power Requirements	-48 VDC direct DC or PoE (-36 VDC to -60 VDC range)
Weight	6.1kg (13.4lbs)
Size	22.6 cm x 22.1 cm x 11.6 cm (8.92" x 8.72" x 4.55")
Operating Temperature	-33ºC to +55ºC (-27ºF to +131ºF) per ETS 300 019-2-4 Class 4M5
Humidity	5%-100%
Weather	IP67 / All Weather
Safety	IEC 60950-1, -22
Regulatory	US FCC Part 101, FCC Part 15B; ETSI EN 302 217

Note: Specifications are typical and subject to change without notice.

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