

TRuepoint™ 5000

Product Sheet

A new generation of point-to-point SONET / PDH / Ethernet digital radios



The TRuepoint™ 5000 series of point-to-point digital radios delivers highly flexible, highly reliable solutions for NxDS1 up to OC-3 and data communication links over a broad range of frequency bands from 6 to 38 GHz.

TRuepoint 5000 allows service providers to software-select the capacity, modulation level, RF frequency, transmission mode (simplex/duplex), and power required to meet worldwide regulatory, spectrum efficiency, and operator requirements.

Plug-and-play modules make it the most agile and scalable microwave radio available, supporting voice, data, and broadcast video networking applications. Service providers can choose a system that meets current requirements, and then adapt or expand their networks to accommodate new applications or growth.

TRuepoint 5000's easy configuration gives providers unprecedented network reach, opening new revenue opportunities that may not have been affordable with a less flexible system. It operates in a traditional circuit-switched network and provides a simplified transition to IP networking.

TRuepoint 5000's radio frequency unit (RFU) is capacity-independent and can be installed indoors or outdoors. The signal processing unit (SPU), installed indoors, is frequency independent.

TRuepoint 5000 reduces many of the capital and operating expenditures commonly associated with deploying new equipment—and makes life easy for network engineers. Smaller antenna requirements and fewer repeater sites reduce the cost of deployment.

Efficient built-in diagnostics, comprehensive network management options (including our comprehensive NetBoss management platform), reduced real estate requirements, low power consumption, and reduced sparing and training requirements deliver sustainable operating cost advantages.

The Truepoint 5000 Scalable Mux X-connect (SMX) is an embedded add/drop multiplexer that allows network operators to eliminate expensive external equipment to add and drop payload. Any combination of up to 28 DS1s, up to 3 DS3s—and Ethernet traffic—can be added and dropped or cross-connected in any direction, in both linear and ring configurations.

TRuepoint can also be managed and monitored using any SNMP network or element manager.

Ease of Use

Installation

- SPU occupies a single rack-mounting space for 1+0 configurations; two rack mounting spaces for 1+1 and 2+0 configurations
- Weatherproof RFU, for outdoor installation, but can also be mounted indoors on a radio relay rack
- RFU can be attached directly to the antenna (RFU-detachable configuration)

Management and Maintenance

- No downtime during module swaps in 1+1 configurations
- Controller board can be removed without interrupting traffic
- Backwards-compatible with MicroStar radios through an integrated HDLC (High Level Data Link Control protocol) port
- Intuitive LED displays on each unit indicate activity and alarm status
- Built-in self-diagnostics differentiate path alarms from equipment alarms
- Convenient setup, monitoring and configuration of any radio in the network through a graphical Web-CIT, VT-100 computer terminal, or hand-held keypad
- A removable CF (compact flash) card in the controller board (stores software and configuration settings, which allows for auto-configuration)

- Strong security
 - SNMP v3
 - RADIUS server/client
 - FTPS
 - HTTPS
 - Many more advanced security features protecting your network

Scalable

- Scalable, RF-independent SPU, using optional plug-in modules to accommodate a wide variety of data interfaces for PDH, SONET and Ethernet applications
- The RFU is capacity-independent
- Single module swap for capacity upgrade from 4 DS1 to OC-3
- Choice of simplex or duplex video networking (simplex easily upgrades to duplex when required)
- Software keys

Flexible

- Software-selectable modulation 4, 16, 32, 64, 128 QAM)
- Flexible forward-error correction schemes optimize bandwidth and system gain
- Plug-and-play modules, facilitating faster network startup, simple reconfigurations and capacity upgrades

Reliable

- Common platform and integrated design for all configurations, providing more than 20 years MTBF (1+0 configuration)
- Automatic/dynamic transmitter power control (ATPC/DTPC)
- Reverse channel switching protects against silent transmitter failures

Key Features Also Include:

- Integrated add/drop multiplexer functionality with cross-connect capability
- Wide variety of interfaces, including combination of Ethernet and TDM interfaces
- Centralized SNMP-based management system, enabling operators to conveniently set administrative functions, monitor performance, perform routine tasks and manage each radio in the network
- On-board Web-based craft interface tool (Web-CIT) enables users to control and monitor their radio systems through a simple Web browser and an Internet connection
- Dynamic bandwidth allocation from and within the auxiliary data channels
- Standard 19.2 Kbps data channel available on the controller board for asynchronous data transfer
- Auxiliary plug-in slots for:
 - 64 Kbps synchronous, G.703 or V.11 interface
 - VF channel/orderwire
 - Additional relay inputs and alarms
 - Optional 10/100BASE-T over 64 Kbps, point-to-point
- Easy to troubleshoot
 - Paperless Chart Recorder (PCR)
 - Event logger
 - Time synchronization (SNTP)