RTN 950A

The RTN 950A is a new generation integrated microwave transmission system developed by Huawei, which can be installed easily and configured flexibly. It supports the convergence of up to 10 radio links, and supports multiple protection schemes. The RTN 950A provides a generic platform for TDM/Hybrid/Packet/Route microwave transmission. The platform provide various service interfaces, large bandwidth, and easy scalability. The RTN 950A fully meets the needs of enterprise microwave transmission networks as well as smooth evolution towards the future.

Architecture

The RTN 950A adopts a modular chassis with 2 U height. It belongs to Huawei RTN 900 split IP microwave series that consist of an indoor unit (IDU) and an outdoor unit (ODU). The RTN 950A provides six slots to flexibly support multiple service boards and convergence of up to 10 radio directions.

Applications

The RTN 950A is located at an hub site to aggregate multiple microwave links, or an access site for large-capacity service backhaul. It suits to be deployed in vertical industries with easy installation and configuration. It has been widely deployed in the ICT infrastructures in government, ISP, power, broadcasting and other vertical industries.

Hub site

Access site
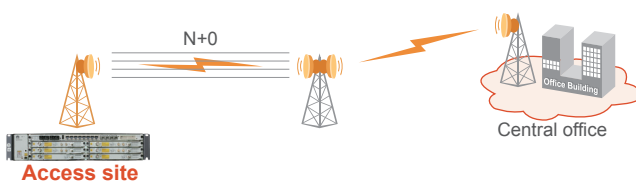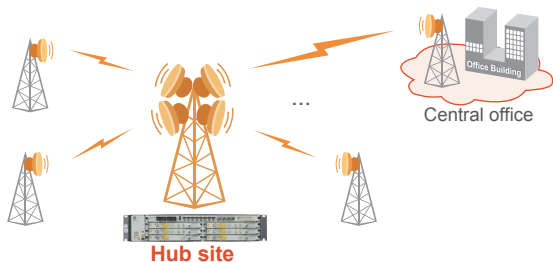
Highlights

- Supports a full spectrum of 6-42 GHz, a channel spacing of 3.5-112 MHz, and a modulation scheme of up to 4096QAM.
- Unified platform for TDM, Hybrid, Packet, and IP Routing services; provides various ports (E1/SDH/FE/GE/10GE) and up to 120 Gbit/s switching capacity.
- Provides an air-interface throughput of up to 2.5 Gbit/s per carrier.
- Provides AES-256 encryption and anti-theft to ensure high security.
- MIMO hardware ready for future huge-capacity requirements.
- Supports unique four-layer Ethernet frame header compression to provide a large throughput for IP services.

- Provides a leading 13-grade hitless adaptive modulation technology to ensure high availability.
- Up to 8-channel enhanced physical link aggregation (EPLA) and load sharing for high-level granularity traffic.
- Supports the Super Dual Band (SDB) solution for TCO-optimized capacity expansion.
- Ethernet synchronization and full IEEE 1588 V2 (TC/OC/BC) provide high quality eLTE backhaul networks.

Easy Deployment and OAM

- The RTN 950A can be easily installed in any standard indoor or outdoor cabinet.
- A plug-and-play USB key can be used to achieve fast startup and service provisioning.
- The WLAN-based mobile LCT can be used for fast configuration, the portable Web LCT can be used for NE-layer management, and the unified platform iManager U2000 can be used for complete network management.

Specifications

Deployment Scenario	Hub site and high-capacity access site
Frequency	6/7/8/10/10.5/11/13/15/18/23/26/28/32/38/42 GHz
Channel Spacing	3.5/ 7/14/28/40/50/56/112 MHz
Modulation mode	QPSK Strong, QPSK, 16QAM Strong, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM, 512QAM Light, 1024QAM, 1024QAM Light, 2048QAM, 4096QAM
RF Direction	10 RF@2 U
Air-Interface Capacity	835-1058 Mbit/s per carrier (none-XPIC)
Native Ethernet Maximum Throughput	· Native Ethernet: 1058 (Mbit/s) · L2+L3 frame header compression (IPv6): 2415 (Mbit/s)
Switching Capacity	10 Gbit/s
TDM Crossing	32 × 32 VC-4
Interface Type	E1, T1, STM-1 (e/o), FE (e/o), GE (e/o), 10GE (o)
RF Configuration Mode	· N+0 (N ≤ 10) · N × (1+0) (N ≤ 10) · 1+1 · N+1 (N ≤ 7) · XPIC
Ethernet Function	· Ethernet II, IEEE 802.3, and IEEE 802.1q/p service format adding or deleting, and exchange VLAN tags (IEEE 802.1q/p) · ISIS, OSPF, BGP, RSVP, LDP · Flow control (IEEE 802.3x) · Link aggregation groups (IEEE 802.3ad LAG and L1 LAG) · RMON (IETF RFC 2819)
Service Type	· Native Ethernet services: E-Line service and E-LAN service · PW-carried Ethernet services: E-Line service, E-AGGR service, and E-LAN (VPLS) service (VPLS standing for virtual private LAN service) · L3VPN, L2VPN (VLL), CES, MCE (Native IP)
Key Feature	CES E1, IEEE 1588v2, USB startup, H-QOS, PLA/EPLA/EPLA+, AES-256 encryption, Anti-theft, 1+1, N+1, XPIC, AM, TDM, PWE3/MPLS, SDB, L3VPN
IDU Weight	· 5.4 kg (1+0) · 6.2 kg (1+1)
IDU Dimensions	442 mm × 220 mm × 88 mm
Enviroment	· Temperature: IDU -5°C to +60°C; ODU -35°C to +55°C · Humidity: IDU 5% to 95%; ODU 5% to 100%
Power	-38.4V to -57.6V
Typical Power Consumption (IDU+ODU)	· 93 W (1+0) · 125 W (1+1)
Certificate	CE, RCM, FCC, IC, ETL, MCMC