MINI-LINK™ PT 2020

All Outdoor packet microwave
Ericsson has over 40 years of microwave experience with more than 3 million radio units delivered to over 170 countries. Ericsson is the market leader in microwave transmission, which is the most competitive choice for capacities up to 1 Gbps.

MINI-LINK PT 2020 is a carrier grade compact, flexible and easy to install packet terminal, providing an important contribution to reduce the network cost. The all-outdoor solution speeds up roll out and reduces site costs with no need for a site building.

It is a perfect solution for new all packet sites, supporting both new networks and expansion of existing ones. You can connect new end sites with MINI-LINK PT 2020 and keep existing MINI-LINK TN in aggregation sites. This is possible since MINI-LINK PT 2020 and MINI-LINK TN are hop compatible. Another possibility is to add MINI-LINK PTs to the Ethernet ports in a full MINI-LINK TN AMM rack to created a extended hub site to facilitate network densification. The extended hub will still be treated as one network element in the management system to keep the operating cost to its minimum.

MINI-LINK PT 2020 can be easily and directly connected to the RBS provided with Ethernet interface, which is nowadays the most common configuration for 3G and LTE sites.

The combination of MINI-LINK PT and SP families offer a unique media-agnostic approach in boosting the performance to the sites to a full gigabit speed with unprecedented simplicity. It also enables service providers to dramatically reduce trenching cost without sacrificing service availability and capacity.

The SP provides additional functions, e.g. more interfaces, MPLS, CES, switching and routing capabilities. Together with GPE 06, SP can also be installed in outdoor environment providing great flexibility for challenge sites.

MINI-LINK PT is also suitable in applications such as Fixed Broadband and Enterprise, providing:
• Cost effective and short implementation time
• DSLAM backhaul
• Fiber extension
• Private Communication

Simple installation with optimized TCO
Configuration via CLI reduces complexity and installation time. All outdoor solution provides further savings compared with traditional split-mount solution: up to 20% installation cost, 33% on site rental and up to 45% reduced power consumption.

Network Synchronization
MINI-LINK PT 2020 supports transport of synchronization signal across the hop. Synchronous Ethernet and 1588v2 including Time & Phase synchronization is supported enabling advanced LTE services.

Low Delay
The delay performance is typically as low as 100 µs per radio link, enabling best possible end user experience.

Adaptive Modulation
The radio link supports hitless adaptive modulation for 4-1024 QAM over 7 – 60 MHz channels, which provides an error free deployment and constant delay variation securing sync performance.

XPIC
The Radio Link can offer XPIC support for Native Ethernet traffic within same bandwidth.

Line-of-Sight (LOS) and Non-Line-of-Sight (NLOS)
MINI-LINK PT 2020 support both LOS and NLOS configurations. This will give operator greater flexibility to deploy small cells, enabling high network performance.

Multi Layer Header Compression
Optimizing the utilization of the available Radio Link resource, by reducing unnecessary information from the header. The gain can be as high as 20%.

TECHNICAL SPECIFICATIONS
MINI-LINK™ PT 2020

Radio link	• 570Mbps over 56MHz using 1024 QAM (ETSI). 600 Mbps over 60MHz using 1024 QAM (ANSI). • TX power: -10 dBm to +30 dBm • TRX Receiver threshold (10^{-6} BER): -92 to -57 dBm
Antennas	• High performance and super high performance • Single and dual polarized • Integrated and separate installation • 0.2/0.3/0.6/0.9/1.2/1.8/2.4/3.0/3.7 m 8 in. 1/2/3/4/6/8/10/12 ft
Frequencies	6, 7, 8, 10, 11, 13, 15, 18, 23, 26, 28, 32, 38 & 42 GHz (ETSI) 6, 7, 8, 10, 11, 13, 15, 18, 23, 24, 28, 38 GHz (ANSI)
Typical weights	< 5.7 kg/12.6 lbs
Nominell dimensions (H x W x D)	98×260×321 mm / 3.9 x10.2x12.6 inch
Power supply	-48 V DC Power over Ethernet
Power consumption	Typical value 32 W
Interfaces	• Traffic: Optical GE via 1000 BASE-X IEEE802.3 Electrical 10/100/1000 BASE-T IEEE802.3 • Maintenance: 10/100 BASE-T IEEE802.3
Standards and recomendations	ETSI, ECC, FCC, IC, IEC, IEEE, IETF, ITU
Operational temperature	-45°C to +60°C / -49F to +140F
Data communication networks	DCN over traffic interface via VLAN IP based DCN for transport of O&M data
Quality of service	• 802.1p • DSCP • MPLS TC • 8 queues of configurable length • WRED or Tail-drop queue management • Strict priority and weighted fair queuing scheduling mechanism
Network management	Supported by IP transport NMS and ServiceON, SNMP v3, SSH, RADIUS, TACACS+, Syslog, RMON, Configuration via CLI, Built-in webpage, Link OAM, Service OAM FM&PM
Synchronization	• Synchronous Ethernet • Transparent for Frequency Synch over Packet • 1588v2 Time & Phase