



# MINI-LINK™ PT 6020

## All Outdoor packet microwave for small cells

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.

## Very High Capacity Microwave

MINI-LINK PT 6020 is an all outdoor and zero footprint microwave solution based on the next generation packet platform, complementing the successful MINI-LINK portfolio.

It is a carrier grade all solution that will save Network Cost since it is compact and easy to install. The all-outdoor solution speeds up and facilitates roll out even further with no need for a site building.

MINI-LINK PT 6020 is based on the E-Band (70/80 GHz), providing opportunity to deploy in this previously unused frequency band, supporting 1 Gbps capacity over a single 250 MHz channel.

The well known MINI-LINK portfolio enables smooth implementation of new packet nodes as a natural extension of existing network, providing flexibility to invest when and where it is really necessary.

MINI-LINK PT 6020 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.

It can also be connected to any other MINI-LINK products using available Ethernet ports, allowing combined implementation in areas that requires specific functionalities and aggregation capacity.

As example, Ericsson SP can be deployed together with MINI-LINK PT, expanding the microwave solution with additional Ethernet interfaces, MPLS, CES, switching and routing capabilities when the site has such specific requirement. Together with GPE 06, Ericsson SP can also be installed in outdoor environment providing great flexibility for challenge sites.

MINI-LINK PT 6020 can also be used as alternative to expand installed base of MINI-LINK TN nodes with E-Band links.

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 6020 supports transport of synchronization signal across the hop. Any synchronization signal is carried over the radio hop without occupying any bandwidth allocated for payload traffic.

#### Low Delay

The delay performance is typically as low as 65  $\mu$ s per radio link, enabling best possible end user experience.

#### Adaptive Modulation

The radio link supports hitless adaptive modulation for 4–64 QAM over 70/80 GHz, which provides an error free transmission and constant delay variation securing sync performance.

#### Line-of-Sight (LOS) and Non-Line-of-Sight (NLOS)

MINI-LINK PT 6020 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 6020

Radio link	<ul style="list-style-type: none"> <li>• 1 000 Mbps over 250 MHz channel using 64 QAM</li> <li>• TX power: +14 to + 16 dBm</li> <li>• TRX Receiver threshold (10<sup>-6</sup> BER): -71 to -58 dBm</li> </ul>
Antennas	<ul style="list-style-type: none"> <li>• 0.2/0.3/0.6 m (0.7/1/2 ft) single polarized antennas for integrated installation</li> <li>• 0.3/0.6 m (1/2 ft) dual polarized antennas for integrated installation</li> </ul>
Frequencies	71 – 76/81 – 86 GHz (duplex distance: 10 GHz)
Typical weights	5.7 kg/12.6 lbs
Nominell dimensions (H x W x D)	98x260x321 mm / 3.9 x10.2x12.6 inch
Power supply	-48 V DC Power over Ethernet
Power consumption	Typical value 45 W
Interfaces	<ul style="list-style-type: none"> <li>• Traffic: Optical GE via 1000 BASE-X IEEE802.3</li> <li>• Electrical 10/100/1000 BASE-T IEEE802.3</li> <li>• Maintenance: 10/100 BASE-T IEEE802.3</li> </ul>
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	<ul style="list-style-type: none"> <li>• 802.1p</li> <li>• DSCP</li> <li>• MPLS TC</li> <li>• 8 queues of configurable length</li> <li>• WRED or Tail-drop queue management</li> <li>• Strict priority and weighted fair queuing scheduling mechanism</li> </ul>
Network management	<ul style="list-style-type: none"> <li>• Supported by IP transport NMS and ServiceON</li> <li>• SNMP v3</li> <li>• SSH, RADIUS</li> <li>• TACACS+</li> <li>• Syslog</li> <li>• RMON</li> <li>• Configuration via CLI</li> <li>• Built-in webpage</li> <li>• Link OAM</li> <li>• Service OAM FM&amp;PM</li> </ul>
Synchronization	<ul style="list-style-type: none"> <li>• Synchronous Ethernet</li> <li>• Transparent for Frequency Synch over Packet</li> <li>• 1588v2 Time &amp; Phase</li> </ul>