BT 24G L/H

BT 24G L/H is a Full-Duplex microwave link operating in the 24 GHz license-free band. The radio can provide up to 900 Mbps throughput using 128 QAM modulation and 150 MHz bandwidth. The Radio also offers advanced Ethernet settings.

It is designed as a Full Outdoor Unit [unit L and unit H (Low / High)] with direct mounting to a parabolic antenna. The Link uses cross-polarization connection, therefore one side of the link must be installed in vertical polarization and the other side in horizontal polarization.

These properties give service providers great flexibility and speed in building up their networks. Top-quality components and durable cast-aluminium design allows the radio link to be used in very difficult climatic conditions.

CHARACTERISTICS

- Software Defined Radio SUMMIT DEVELOPMENT
- Transmission capacity up to 900 Mbps FULL DUPLEX
- Unit L and unit H (Low / High)
- In case of failure automatically switches to a backup link
- Cross-polarization connection of radio
- 4 x Gigabit Ethernet port (2 x SFP, 2 x RJ45)
- Jumbo packet transfer of MTU size up to 11 000 bytes
- Security and Access management, digitally encrypted transmitter
- Advanced QoS Port-based and Bandwidth control Management
- Optimal solution for Triple Play services with IPTV support
- Support IEEE 802.1Q VLAN (also QinQ)
- Support packet-flow control acc. to IEEE 802.3x
- Power supply via Ethernet cable acc. to IEEE 802.3at
- Power supply via separate cable (DC input 20 to 57V)
- Automatic switching to backup power supply (PoE1, PoE2, PWR)
- Built-in spectral analyzer for searching for free channel
- Easy aligning with the beeper, built-in RSSI indicator or measuring the DC voltage
- Configuration of radio link in Windows, Linux, Android, iOS
- Monitoring of radio parameters by means of IP protocol, with implemented SNMPv2
- Monitoring of device parameters in real time (input voltage, current, power …)
- Automatic detection of radio polarization
- Direct installation of parabolic antenna

FREE

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PARAMETERS

GENERAL RF

Frequency band	24,00 – 24,25 GHz
Channel bandwidth	14 to 150 MHz
Asymmetric Bandwidth	YES
FEC	Reed-Solomon, Interleaving
ACM	YES
Frequency stability	± 5 ppm

TRANSMITTER

Output power	-25 to +10 dBm (± 1 dB)*
APC (Automatic Power Control)	YES
APCmin, APCmax	YES
Regulation APC by RSSI	YES

* +8dBm with modulation 256 QAM
+10dBm with modulation 4-128 QAM

TRANSMISSION CAPACITY

Symmetric Bandwidth [MHz]	Modulation	Capacity of radio [Mbps]	Sensitivity for BER 10-6 [dBm]	Sensitivity for BER 10-9 [dBm]
50	256 QAM	343	-62	-60
50	128 QAM	300	-66	-64
50	64 QAM	257	-69	-67
50	32 QAM	214	-73	-71
50	16 QAM	171	-76	-74
50	4 QAM	91	-81	-79

Asymmetric Bandwidth [MHz]	Modulation	Capacity of radio [Mbps]	Sensitivity for BER 10-6 [dBm]	Sensitivity for BER 10-9 [dBm]
150 / 50	128 QAM	902 / 300	-60	-58
150 / 50	64 QAM	772 / 257	-63	-61
150 / 50	32 QAM	644 / 214	-67	-65
150 / 50	16 QAM	515 / 171	-70	-68
150 / 50	4 QAM	274 / 91	-75	-73

ANTENNAS

Type	Diameter [cm]	Gain [dBi]
ANT 24D35-C3	35	36
ANT 24D65-C3	65	41
ANT 25A90-C3	90	44
ANT 25A120-C3	120	45,5

USER INTERFACE

Eth1, Eth2	2 x 10/100/1000 Base-T
SFP1, SFP2	2 x 1000Base-SX / 1000Base-LX
GUI	SMS (Windows, Linux-Wine)
WUI	SMS (Web browser, read-only)
MUI	SMS (Android, iOS)

MECHANICAL

Mechanical concept	Full Outdoor
Dimension	145 mm x 240 mm x 240 mm
Weight	3,5 kg

POWER SUPPLY & CABLE

Power Over Ethernet	IEEE 802.3at (PoE+)*
Separate DC power supply	20-57 VDC
Power consumption	up to 35 W
Ethernet cable Outdoor	FTP CAT5e max. 100 m

* When powering through the Ethernet port DC resistance of cabel can not exceed 10 Ohms (while using optical module).

ENVIRONMENTAL

Operational temperature	-20°C to 50°C
Ingress Protection	IP-67

COMPLIANCE

IEEE 802.3	1000 Base-TX, 1000 Base-T
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.3x	Flow Control
IEEE 802.1q	VLAN tagging, QinQ
IEEE 802.3u	Auto-Negotiation protocol
IEEE 802.3at	Power Over Ethernet plus

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