

ROBUST

BTH 17/24G



 Summit
Development

BTH 17/24G is a Full-Outdoor and Full-Duplex microwave link operating in the 17 and 24 GHz license-free band. The hybrid radio transmits/receives on one channel in the 17 GHz band and on the second channel in the 24 GHz band. This microwave solution with a bandwidth up to 160 MHz allows higher transmission speed over a much longer distance in the free band. In addition, low level modulation provides much greater radio resistance to interference.

This unique PtP technology has been developed and manufactured by SUMMIT DEVELOPMENT, an established Czech manufacturer of microwave links, at their own software digital radio.

CHARACTERISTICS

- Software Defined Radio SUMMIT DEVELOPMENT (own modem)
- Transmission capacity up to 1 Gbps full duplex
- In case of failure automatically switches to a backup link
- Bandwidth up to 160 MHz
- FEC (Reed Solomon, Interleaving)
- 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



HIGHLY RELIABLE MICROWAVE PTP LINKS

www.summitd.cz

PARAMETERS

GENERAL RF

Frequency band	17.1 - 17.3 / 24 - 24.25 GHz
Channel size	40 to 160 MHz
Frequency stability	± 5 ppm
FEC	Reed-Solomon, Interleaving
ACM	YES
Asymmetric Bandwidth	YES

MECHANICAL

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

TRANSMITTER

Output power	-25 to 12 dBm (± 1 dB) *
APC (Autom. Power Control)	YES
APCmin, APCmax	YES
Regulation APC on RSSI	YES

* +10 dBm with modulation 64Q, 128Q

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

TRANSMISSION RATE (160MHz channel)

Capacity of radio [Mbps]	Modulation	Sensitivity for BER 10-6 [dBm]
1020	128 QAM	-60
874	64 QAM	-62
729	32 QAM	-67
583	16 QAM	-69
292	4 QAM	-76

ENVIRONMENTAL

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

ANTENNAS

Type	Diameter [cm]	Gain 17 GHz	Gain 24 GHz
ANT 17/24B35-C3	35	33 (± 1dB)	36 (± 1dB)
ANT 17/24B65-C3	65	38 (± 1dB)	41 (± 1dB)
ANT 17/24A90-C3	90	41 (± 1dB)	44 (± 1dB)
ANT 17/24A120-C2	120	43 (± 1dB)	45,5 (± 1dB)

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
IEEE 802.3u	Auto-Negotiation protocol
IEEE 802.3at	Power Over Ethernet plus

USER INTERFACE

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



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