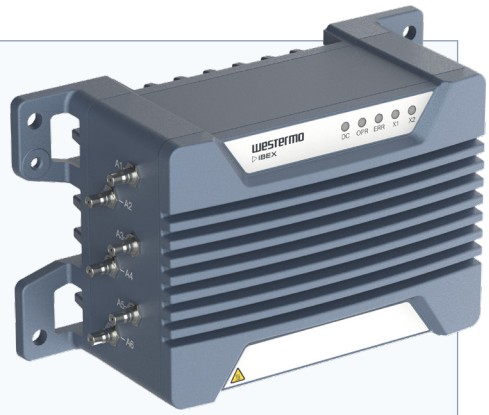
EN 50155 LTE and WLAN Router

Ibex-RT-630

- Mobile broadband Cat12 LTE-A and WLAN router/gateway
  - Supports 3 x carrier aggregation and 256QAM
  - WLAN interface with access point and roaming client modes
  - Mobile Communication Gateway LTE and WLAN
- Designed for onboard usage
  - EN50155 and EN45545-2 certified
  - Compact design with M12 interfaces
  - Wide temperature range
- High bandwidth supports multiple applications
  - Data offloading
  - Remote monitoring
  - Video surveillance



CE FC Part 15 | EN 45545-2 Fire Protection | EN 50121-4 Railway Trackside | EN 50155 On Board Rail | NFPA 130 Fire Protection

The Ibex-RT-630 is a mobile LTE and WLAN router for onboard usage in trains, trams, locomotives and busses. The Ibex-RT-630 offers outstanding performance and rugged internet connectivity back-up to enable hybrid train-to-ground installations with a single device. The Mobile Communication Gateway (MCG) router is designed to withstand the tough onboard environmental conditions and can be remotely managed using web browser or SNMP management tools. The MCG provides advanced firewall functionalities and high-performance VPN connectivity.

The router exceeds the high requirements for the most bandwidth-demanding applications worldwide and features global LTE bands to support all current, as well as future, frequencies. A compact design enables quick and easy installation into the tight spaces of trains, while configuration and unit replacement is simplified by a SIM card memory for configuration parameters. Dual SIM allow for further performance optimisations and carrier redundancy. IP66-rating and a wide temperature range from -40 °C to +70 °C ensure that the devices can be installed virtually anywhere, without the need of additional protection.

Meeting the requirements of the rail market, the Ibex-RT-630 is very well-suited for any deployment in environmentally challenging environments.

Ordering Information	
Art.no	**Description**
3623-075001	Ibex-RT-630-LV EU, EN 50155 LTE and WLAN Router
3623-075002	Ibex-RT-630-LV NA, EN 50155 LTE and WLAN Router
3623-075101	Ibex-RT-630-HV EU, EN 50155 LTE and WLAN Router
3623-075102	Ibex-RT-630-HV NA, EN 50155 LTE and WLAN Router

Specifications Ibex-RT-630

Functionality	Mobile 3G/LTE/WLAN Router for public transport, outdoor and industrial applications
Operating temp. range	-40 to +70 °C
Power feed	According to EN 50155, LV: 24 VDC or PoE, HV: 72 to 110 VDC, 15 W max.
Physical Dimensions	110 x 195 x 80 mm (W x L x H), without antennas
Environmental protection	IP66
Mobile Interface	2x2 MIMO LTE-A Cat 12, 3GPP E-UTRA Release 12
Mobile frequency bands	LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21/B26/B28/B29/B30/B32/B66; LTE-TDD: B38/39/B40/B41; WCDMA Band: B1/B2/B3/B4/B5/B8/B9/B19
LTE-A Carrier Aggregation	DL 2CA: B1+3/5/18/19/20/26; B2+2/4/5/12/13/17/29/30/66; B3+3/5/7/8/19/20/28; B4+4/5/12/13/17/29/30; B5+7/30/66; B7+7/20/28; B12+30; B13+66; B19+21; B20+B32; B29+30; B38+38; B39+39; B39+39; B39+41 B40+40; B41+41; B66+66;12,29,30,5; B2+B14;B14+B30;B14+B66; (Note: B29, B32 only for secondary component carrier) DL inter-band 3CA: B1+3+5/7/8/19/20/28; B1+7+20, B2+4+5,B2+4+13, B2+5+30, 2+12+30, B2+29+30 ,B3+7+20, B3+7+28 , B3+7+8, B4+5+30, B4+12+30, B4+29+30, B5+66+2, B13+66+2, B66+12+30,B66+29+30,B66+5+30; B2+B14+B66; DL 2 intra-band plus inter-band 3CA: B2+2+5, B2+2+13, B3+3+7, B3+7+7, B3+3+20, B3+3+28,B3+3+1, B4+4+5, B4+4+13, B7+7+28, B5+66+66, B13+66+66, B66+66+2, B39+B39+B41; B39+B41+B41; B14+B66+B66 DL 3 intra-band 3CA: B40+40+40, B41+41+41, B66+66+66 UL Intra-band Continuous 2×CA: B3+3; B7+7; B38+38; B40+40; B41+41;
Mobile data rates	LTE-FDD: Max 600Mbps (DL)/Max 150Mbps (UL) – DL 256QAM / UL 64QAM LTE-TDD: Max 430Mbps (DL), Max 30Mbps (UL) DC-HSDPA: Max 42Mbps (DL) HSUPA: Max 5.76Mbps (UL) WCDMA: Max 384Kbps (DL), Max 384Kbps (UL)
WLAN interface	High power 3x3 MIMO 802.11n Access Point / Client
WLAN frequency ranges	2.400...2.4835 GHz, 5.150...5.350 GHz, 5.470...5.725 GHz, 5.725...5.850 GHz
WLAN transmit power	Max. conducted transmit power within the whole frequency range: 1 port: BPSK...16QAM: +22dBm, 64QAM: 20dBm 2 ports: BPSK...16QAM: +25dBm, 64QAM: 23dBm 3 ports: BPSK...16QAM: +27dBm, 64QAM: 25dBm
GNSS	GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1 SAIF, GLONASS L1OF, BeiDou B1I, Galileo E1B/C, D-GPS
Antenna connectors	6 x QMA compatible connectors
SIM cards	2 x SIM card slots
IP Routing	Static IP routing, Fixed fallback IP, IP aliases, multicast routing, Common Address Redundancy Protocol (CARP), Generic Routing Encapsulation (GRE), SNAT/DNAT
Firewall	Stateful inspection firewall / ACL
VPN	IPsec, OpenVPN client
Others	DHCP server/client, 802.1Q VLAN, 802.1p priority, NTP client/server, Simple Certificate Enrollment Protocol (SCEP)
Management Interfaces	Web interface (HTTPS), CLI via SSHv2 and TELNET, SNMPv2c/v3, WebAPI (JSON-RPC)
Ethernet Interface	2 x 10/100/1000Base-T, 2 x M12 X-coded connectors
Monitoring Features	Built-in monitoring sensors and diagnostics, SNMP Traps, Syslog
Standards / Approvals	EN 55022, EN 55022 A1, EN301 489-1/-17, EN 62368-1
Railway approvals	EN 50121-3-2, EN 50121-4, EN 50155, EN 45545-2