

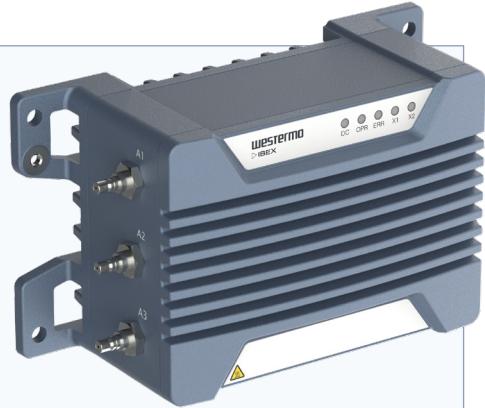
# EN 50155 LTE Router

## Ibex-RT-330

- Mobile broadband Cat12 LTE-A router
  - Supports 3 x carrier aggregation and 256QAM
  - Worldwide LTE-A and UMTS/HSPA+ coverage
  - Dual SIM Support
- Designed for mobile 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



Part 15

EN 45545-2  
Fire ProtectionEN 50121-4  
Railway TracksideEN 50155  
On Board RailNFPA 130  
Fire Protection

The Ibex-RT-330 is a mobile LTE router for onboard usage in trains, trams, locomotives and busses. 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 are 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-330 is very well-suited for any deployment in environmentally challenging environments.

### Ordering Information

Art.no	Description
3623-0740	Ibex-RT-330-LV, EN 50155 LTE Router
3623-0741	Ibex-RT-330-HV, EN 50155 LTE Router

## Specifications Ibex-RT-330

Functionality	Mobile 3G/LTE 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, 15W max., (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 2xCA: 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)
GNSS	GPS L1C/A, SBAS L1C/A, QZSS L1C/A, QZSS L1 SAIF, GLONASS L1OF, BeiDou B1I, Galileo E1B/C, D-GPS
Antenna connectors	3 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, EN 301 489-1/-17, EN 62368-1
Railway approvals	EN 50121-3-2, EN 50121-4, EN 50155, EN 45545-2