BoltMAR 20-11

Embedded Services Router - Cisco 5921

- **Cisco IOS® 5921 ESR**
- **Ruggedized IP65 Enclosure**
- **Modular Cellular Connectivity**
- **High Transmit Power Wi-Fi**
- **Multiple Interfaces**
- **Long-term Availability**

Features

Cisco IOS - Features the Cisco 5921 Embedded Services Router (ESR), the IOS Software router that provides reliable network routing in extreme enviroments
Rugged - IP65-rated and extended operating temperature for premium performance in extreme environments
Modular Cellular Connectivity - ReliaCELL 10-20 Cellular Adapter Module provides multiple 4G/3G connectivity options for flexibility in multi-carrier and multinational deployments
High Power Wi-Fi - High transmit power dual band Wi-Fi for localized connectivity on-board and in the vehicle vicinity
Multiple Interfaces - Multiple Ethernet, serial I/O ports, optional CAN bus, plus embedded GPS for complete vehicular connectivity
Long-term Availability - Designed for markets and applications where long-term availability and support is a must have requirement

Description

The BoltMAR 20-11 provides a mission-critical connectivity solution with flexible wireless networking support and Cisco 5921 Embedded Services Router (ESR) for mobile wireless infrastructures, supporting ubiquitous Cisco internetworking for industrial, transportation, public safety, and defense applications.
The routing functionality allows enterprise-grade networking, multi-path routing, quality of service, security, and management to be extended to mobile assets, enabling self-forming and self-healing networks for remote sensor management, vehicle-to-vehicle and on-board communications, high-speed networking, and surveillance.
The BoltMAR 20-11 provides dual Ethernet (expandable), 802.11 a/b/g/n Wi-Fi, serial and USB ports, optional built-in GPS and CAN bus ports and a wide range power supply to support the most demanding vehicular requirements.
Cellular connectivity for BoltMAR 20-11 features Eurotech ReliaCELL 10-20 Modular Cellular Adapter, supporting a wide variety of cellular technologies including the latest LTE UE categories and is certified for multiple carriers and markets.
A ruggedized platform ideal for harsh vehicular environments, the BoltMAR 20- 11 provides a low power, fanless, and compact design with high-end rugged connectors, IP65 ingress protection, and extended operating temperatures to ensure long-term reliability.

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EUROTECH

Ordering code: BTMAR-20-11-01		
ROUTING	Software Router	Cisco 5921 Embedded Services Router (ESR)
	Routing Protocols	RIP Versions 1 and 2, OSPF, EIGRP-IP, BGP, Cisco Discovery Protocol, IP Policy Routing, IP Multicast PIM Versions 1 and 2, IGMP Versions 1, 2, and 3. GMP
	VLANs	Up to 32 VLANS per Router
	Radio-Aware Routing	Radio-Aware Routing: optimizes IP routing over fixed or temporary radio networks, Factors radio link metrics into route calculations; Immediately recognizes and adapts to changes in network neighbor status Dynamic Link Exchange Protocol (DLEP), Router Radio Control Protocol (R2CP), RFC 5578
	Security	Cisco Suite B Support; PAP/CHAP Authentication; IPSec, SSL/TLS, 3DES, AES, IKE Protocol Support
	QoS	QoS, Traffic Shaping, Priority Queuing, RSVP
	Management	SNMP, RADIUS, TACACS+, NTP, TFTP, DHCP Client and Server, DHCP Relay, NAT/Multi-NAT
	Mobile Ad-Hoc Networks	Mobile IP - OSPFv3 Enhancements for Mobile ad-hoc Networks
PROCESSOR	CPU	Intel Atom Z510P, 1.1GHz
MEMORY	RAM	1GB RAM Soldered on Board
STORAGE	SSD	2GB Flash Disk SSD, 8GB DOM
	Other	1x microSD Slot (Service Panel)
I/O INTERFACES	Ethernet	2x 10/100/1000Mbps (Expandable)
	USB	2x USB 2.0 (Service Panel), 1x USB 2.0 (Rear Panel M2 Connector)
	Serial	1x RS-232 (Service Panel), 2x RS-232 (Rear Panel M2 Connector)
	CAN 2.0B	Factory Option
	Digital I/O	2x Opto-isolated Digital Input, 1x Opto-isolated Digital Input Odometer
	Video	1x VGA (Service Panel)
RADIO INTERFACES	Cellular	Optional Accessory: ReliaCELL 10-20 2G/3G/4G Modular Cellular Adapter, with Cable Harness
	GPS	Factory Option: 50 channels Galileo
	Wi-Fi	Dual Band 2.4/5.0GHz IEEE 802.11 a/b/g/n - High TX Output Power up to 25dBm @ a/g/n Bands
	Antennas (External)	1x SMA GPS, 2x SMA Wi-Fi, 1x Reserved
OTHER	LEDs	4x Green LEDs
	Buttons	1x Reset
POWER	Input	9 - 36VDC (Nominal 24VDC), Ignition Key Input
	Consumption	19W Typical
ENVIRONMENT	Operating Temp	- 30 to +60°C EN50155 Class T1 (70°C for 10 min)
	Storage Temp	- 40 to +85°C
	Humidity	< 95% Relative Humidity at +45°C Non Condensing
CERTIFICATIONS	Regulatory	CE, FCC, ISED
	Safety	UL 60950-1 (§)
	Vertical	EN 50155, EN 45545 (Fire & Smoke), EN 61373 (Vibrations & Shocks)
	Environmental	RoHS2, REACH
	Wi-Fi Radio	RED, FCC
	Ingress	IP65
MECHANICAL	Enclosure	Extruded Aluminum (Black Anodize)
	Dimensions	254x129x57mm / 10.0x5.08x2.24in (LxWxH)
	Cooling	Fanless Design (No Moving Parts)
	Weight	3Kg

(§) UL, NRTL listing Factory Option.

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