EV8100

robustOS pro

Elevator Voice Gateway
1x FXS + 2x Ethernet + 1x RS232+ 1x RS485 + 1x CAN
4x DI, 1x Relay, Optional Wi-Fi, Bluetooth

INTRODUCTION

Robustel's EV8100 is an advanced elevator voice gateway that supports voice transmission over VoIP and VoLTE, enabling seamless communication between a cellular network and the elevator's intercom system. This next-generation device offers multi-interfaces and allows for seamless remote monitoring and management of the elevator's communication system, making it easy to address any issues or malfunctions quickly and efficiently. With its advanced features and robust design, the EV8100 is a reliable and essential safety solution for any modern building.

EV8100 supports Docker for easy deployment of applications and benefits from '**RobustOS Pro**' – Robustel's latest Linux Debian bullseye based router OS with enhanced cybersecurity, advanced GUI and a myriad of software features including VPNs, Smart Roaming, SMS remote control and more.

RCMS is Robustel's free router monitoring service that is fully compatible with the EV8100. It allows customers to see a location overview of their routers quickly and simply on a map. Features such as data usage, signal strength, current network and much more can then be viewed on a per router basis. Over-the-air updates are supported for Firmware, router configuration and Apps serving as essential "insurance" if anything was not quite right during deployment.

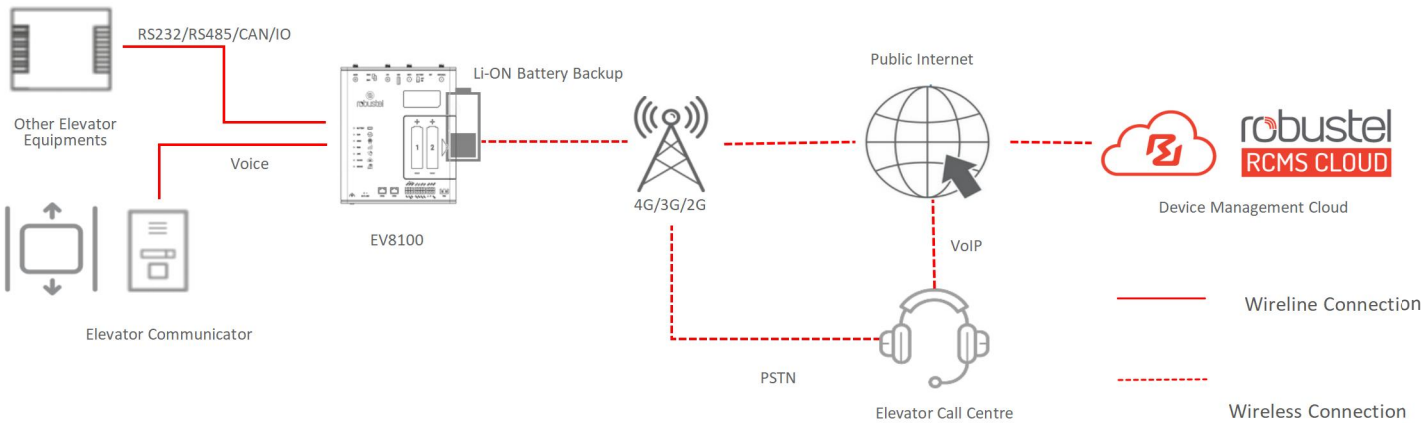
You can try Robustel's free router management platform by signing up here: https://rcms-cloud.robustel.net

robustel RCMS CLOUD

KEY FEATURES

- VoIP and VoLTE supported, VoLTE as a backup voice communication line
- Backup battery inside, comply with EN 81-28 and AS 1735 standards
- Highly stable 4G/3G/2G cellular connectivity with global band coverage
- High performance compute engine with 8 GB eMMC Flash for running complex customer applications
- 'Docker' containerization supported
- 1 x RS232, 1 x RS485 +1 x CAN for connection to industrial/legacy devices
- 4 x DI & 1 x Relay for simple monitoring and control
- Dual SIM card slots for redundant communications
- 802.11ac Wi-Fi (optional) supporting AP and Client modes
- Bluetooth (optional), Bluetooth 5.2 compliant
- Supports C, C++, Java, Python, Node.js etc. for users to develop their own applications
- More than 50,000 applications from Debian repository currently available
- Wireguard/IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN + more VPN options
- Supports RCMS – Robustel's router/gateway management platform for effective management of large estates of devices

APPLICATION EXAMPLE



SPECIFICATIONS

Hardware System	
CPU	i.MX 6ULL, 792MHz
RAM	512MB DDR3
Flash	8 GB eMMC
Cellular Interface	
Number of antennas	2
Connector	SMA-K
SIM	2 x Mini SIM (2FF)
FXS	
Number of ports	1
Connector	2-pin 5.08 mm terminal block
Signal	TIP, RING
Ethernet Interface	
Ports	2 xRJ45, 10/100 Mbps, LAN or WAN, 1KV magnet isolation protection
Serial Interface	
Type	1 x RS232, 1 x RS485 +1 x CAN
Connector	3.5 mm terminal block
ESD protection	8 KV Air, 4 KV Contact
Baud rate	300 bps to 115200 bps for RS232/RS485, up to 1Mbps for CAN
Signal	RS232: TXD, RXD, GND RS485: A, B, GND CAN: CAN_H,CAN_ L, GND
DI/Relay Interface	
Number of ports	4 x DI(Wet contact) + 1 x Relay(Dry contact)
Connector	3.5 mm terminal block
Absolute maximum VDC	+ 30V DC(DI), +40VDC(Relay)
Absolute maximum ADC	100 mA(DI), 300mA(Relay)
Signal definition	DI1+, DI1-, DI2+, DI2-, DI3+, DI3-, DI4+, DI4-
	NC, NO, COM
Wi-Fi Interface (Optional)	
Number of antennas	2
Connector	RP- SMA-K
Standards	802.11a/b/g/n/ac, 2 x 2 MIMO, supports AP and Client modes
Frequency bands	2.412 - 2.484 GHz (2.4 GHz ISM band)
	5.18 - 5.825 GHz (5 GHz ISM band)
Security	WEP 64-bit and 128-bit encryption with H/W TKIP processing
	WPA/WPA2 (Wi-Fi Protected Access)
	AES-CCMP hardware implementation as part of 802.11i security standard
Bluetooth Interface (Optional)	
Number of antennas	1 (Multiplexing Wi-Fi antenna)
Connector	RP-SMA-K
Standards	Bluetooth 2.1 and 3.0 + Enhanced Data Rate (EDR) + Bluetooth 5.2
Others	
Reset button	1 x RST
Switch	1 x Battery Switch
USB	1 x USB 2.0 (host), Type A, 5V, 500mA
LED indicators	1 x Battery, 1 x RUN, 1 x Line, 1 x MDM
	1 x RSSI, 1 x Cloud, 1 x Device
Watchdog	External

VoIP	
Protocols	SIP (RFC3261) over UDP, SIPs, SRTP
DTMF	In-band, RFC2976, RFC 2833
Software (Basic features of RobustOS Pro)	
Network protocols	PPP, PPPoE, TCP, UDP, DHCP, ICMP, NAT, HTTP, DNS, NTP,
	SMTP, Telnet, HTTPs, DNS, ARP, VLAN, SSH2, DDNS, etc.
VPN tunnel	IPsec, OpenVPN, GRE
Firewall	DMZ, anti-DoS, Filtering (IP/Domain name/
	MAC address), Port Mapping, Access Control
Remote management	Web, CLI, SMS
Serial port	Transparent, TCP Client/Server, UDP, Modbus RTU Gateway
Others	Smart Reboot, Data Guard, Smart Roaming
SDK	
Operating System	RobustOS Pro (Based on Debian 11(bullseye))
Supported programming language	C, C++, Python, Java, Node.js etc. (for users to develop own applications)
Debian repository available	
Flash available for SDK	6 GB
RAM available for SDK	256 MB
App Center (Available Apps for RobustOS Pro)	
Apps*	L2TP, PPTP, DMVPN, VRRP, QoS, SNMP, Language, RCMS, Dynamic route, Captive Portal, Modbus Master, etc.
**Request on demand. For more Apps please visit www.robustel.com.*	
Power Supply and Consumption	
Connector	2-pin 3.5 mm terminal block with lock
Input voltage	9 ~ 30V DC
Power consumption	Idle: 4W
	Data link: 25W(peak)
Physical Characteristics	
Ingress protection	IP30
Housing & Weight	Plastic, 470g
Dimensions	170*150*35 mm
Installations	Desktop, wall mounting and 35 mm DIN rail mounting
	Magnetic optional, the suction iron is a detachable part
Operating temperature	-20 ~ + 60 °C(Without battery)
	0 ~ + 45 °C(With battery)
	Note: The battery can be charged at 0~35°C
Storage temperature	-40 ~ + 85 °C(Without battery)
	-20 ~ + 35 °C(With battery for long term)
Relative humidity	5 ~ 95% RH
Regulatory and Type Approvals (*In progress)	
Environmental	RoHS2.0*
EMI	EN 55032 Conducted Emission class B*
	EN 55032 Radiated Emission class B*
EMS	IEC 61000-4-2 (ESD) Level 2*
	IEC 61000-4-3 (RS) Level 3*
	IEC 61000-4-4 (EFT) Level 2*
	IEC 61000-4-5 (Surge) Level 2*
	IEC 61000-4-6 (CS) Level 2*

ORDERING INFORMATION

Model	PN	Wi-Fi +BLE	Frequency Bands*	Country/Region	Certification (*In progress)
EV8100-A-4L-A06GL	B126001	-	**4G:** LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B18/B19/B20/B25/B26/B28 LTE TDD: B38/B39/B40/B41 **3G:** UMTS: B1/B2/B4/B5/B6/B8/B19 **2G:** GSM: B2/B3/B5/B8	Global	CE, UKCA
EV8100-B-4L-A06GL	B126002	√			
EV8100-A-4L-A34AU	B126003	-	**4G:** LTE-FDD:B1/2/3/4/5/7/8/28 LTE-TDD:B40 **3G:** WCDMA: B1/2/4/5/8 **2G:** GSM/EDGE:B2/3/5/8	ANZ	RCM
EV8100-B-4L-A34AU	B126004	√			
EV8100-A-4L-A04JP	B126005	-	**4G:** LTE-FDD:B1/B3/B8/B18/B19/B26 LTE-TDD:B41 **3G:**B1/B6/B8/B19	JP	JATE , TELEC
EV8100-B-4L-A04JP	B126006	√			

**For more information about frequency bands in different countries, please contact your Robustel sales representative.*

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Website: www.robustel.com