EasyCell
Ruggedized 4G LTE Router w/ Untinerrupted Connectivity

Product Highlights

Reliable High Cellular Speeds
- 4G LTE Cat 4 connectivity up to 150Mbps download and 50Mbps upload speed.

HexaCloud - Cloud Device Monitoring
Remotely monitor devices connected to EasyCell with ease via responsive and user-friendly HexaCloud portal.

Uninterrupted Connection (WAN Failover)
Integrated with WAN Failover which automatically switches to available backup connection. Ideal for CCTV, ANPR, and more where near-permanent connection and high data rate are necessary.

Auto APN feature
- EasyCell auto APN allows the device to analyze the SIM card and automatically select the correct APN.

Auto Connections with Hotspot
- Direct connection (bridge) between mobile ISP and device on LAN. Wireless access point with Hotspot functionality

Designed for Harsh Environments
- Withstands extreme temperatures (-40 to 75°C) and 10% to 90% non-condensing operating humidity with IP30 ingress protection rating.

Ordering Information

Model	
EasyCell	EasyCell Ruggedized 4G LTE Router, Antennas, and Power Supply

What's in the Box
EasyCell, Power Supply, and All Appropriate Antennas

Specifications

Main Features +

Module	4G (LTE) – Cat. 4 up to 150 Mbps DL / 50 Mbps UL
3GPP Release	Release 10/11 depending on the hardware version
Status	Signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP, bytes sent/received, connected band, IMSO, ICCID
SMS	SMS status, SMS configuration, send/read SMS via HTTP POST/GET, EMAIL to SMS, SMS to e-MAIL, SMS to HTTP, SMS to SMS, scheduled SMS, SMS autoreply, SMPP
USSD	Supports sending and reading Unstructured Supplementary Service Data messages
Black/White list	Operator black/whitelist
Multiple PDN	Possibility to use different PDNs for multiple network access and services
Band Management	Band lock, used band status display
APN	Auto APN
Bridge	Direct connection (bridge) between mobile ISP and device on LAN
Passthrough	Router assigns its mobile WAN IP address to another device on LAN

Wireless +

Wireless Mode	IEEE 802.11b/g/n, Access Point (AP), Station (STA)
Wi-Fi Security	WPA2-Enterprise - PEAP, WPA2-PSK, WEP, WPA-EAP, WPA-PSK; AES-CCMP, TKIP, Auto Cipher modes, client separation
Wi-Fi Users	Up to 50 simultaneous connections
Wireless Hotspot	> Captive portal (Hotspot), internal/external Radius server, SMS authorization, internal/external landing page, walled garden, user scripts, URL parameters, user groups, individual user or group limitations, user management, 9 default customizable themes
Wireless Features	Fast roaming (802.11r), Relayed
Wireless MAC Filter	Whitelist, blacklist

Ethernet +

WAN	1 x WAN port, 10/100 Mbps, compliance IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX
Operating Humidity	1 x LAN port, 10/100 Mbps, compliance with IEEE 802.3, IEEE 802.3u standards, supports auto MDI/MDIX

Network +

Routing	Static routing, Dynamic routing (BGP, OSPF v2, RIP v1/v2, EIGRP, NHRP), Policy based routing
Network Protocols	TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, SFTP, FTP, SMTP, SSL/TLS, ARP, VRRP, PPP, PPPoE, UPNP, SSH, DHCP, Telnet, SMPP, SMNP, MQTT, Wake On Lan (WOL)
VoIP Passthrough Support	H.323 and SIP-alg protocol NAT helpers, allowing proper routing of VoIP packets
Connection Monitoring	Ping Reboot, Wget Reboot, Periodic Reboot, LCP and ICMP for link inspection
Firewall	Port forward, traffic rules, custom rules
DHCP	Static and dynamic IP allocation, DHCP Relay
QoS / Smart Queue Management (SQM)	Traffic priority queuing by source/destination, service, protocol, or port, WMM, 802.11e
DDNS	Supported >25 service providers, others can be configured manually
Network Backup	Wi-Fi WAN, Mobile, VRRP, Wired options, each of which can be used as an automatic failover
Load Balancing	Balance Internet traffic over multiple WAN connections
SSHFS	Possibility to mount remote file system via SSH protocol

Security +

Authentication	Pre-shared key, digital certificates, X.509 certificates, TACACS+, Radius, IP & Login attempts block
SSHFS	DDOS prevention (SYN flood protection, SSH attack prevention, HTTP/HTTPS attack prevention), port scan prevention (SYN-FIN, SYN-RST, X-mas, NULL flags, FIN scan attacks)
VLAN	Port and tag-based VLAN separation
Mobile Quota Control	Mobile data limit, customizable period, start time, warning limit, phone number
WEB Filter	Blacklist for blocking out unwanted websites, Whitelist for specifying allowed sites only
Access Control	Flexible access control of TCP, UDP, ICMP packets, MAC address filter

Security +

OpenVPN	Multiple clients and a server can run simultaneously, 27 encryption methods
OpenVPN Encryption	DES-CBC 64, RC2-CBC 128, DES-EDE-CBC 128, DES-EDE3-CBC 192, DESX-CBC 192, BF-CBC 128, RC2-40-CBC 40, CAST5-CBC 128, RC2-64-CBC 64, AES-128-CBC 128, AES-128-CFB 128, AES-128-CFB1 128, AES-128-CFB8 128, AES-128-OFB 128, AES-128-GCM 128, AES-192-CFB 192, AES-192-CFB1 192, AES-192-CFB8 192, AES-192-OFB 192, AES-192-CBC 192, AES-192-GCM 192, AES-256-GCM 256, AES-256-CFB 256, AES-256-CFB1 256, AES-256-CFB8 256, AES-256-OFB 256, AES-256-CBC 256
VLAN	IKEv1, IKEv2, with 14 encryption methods for IPsec (3DES, DES, AES128, AES192, AES256, AES128GCM8, AES192GCM8, AES256GCM8, AES128GCM12, AES192GCM12, AES256GCM12, AES128GCM16, AES192GCM16, AES256GCM16)

Specifications

MODBUS TCP Slave +

ID Range	Respond to one ID in range [1;255] or any
Allow Remote Access	Allow access through WAN
Custom Registers	MODBUS TCP custom register block requests, which read/write to a file inside the router, and can be used to extend MODBUS TCP Slave functionality

MODBUS TCP Master +

Supported Functions	01, 02, 03, 04, 05, 06, 15, 16
Supported Data Formats	8-bit: INT, UINT; 16-bit: INT, UINT (MSB or LSB first); 32-bit: float, INT, UINT (ABCD (big-endian), DCBA (little-endian), CDAB, BADC)
Custom Registers	MODBUS TCP custom register block requests, which read/write to a file inside the router, and can be used to extend MODBUS TCP Slave functionality

Data to Server +

Protocol	HTTP(S), MQTT, Azure MQTT, Kinesis

MQTT Gateway +

MQTT Gateway	Allows sending commands and receiving data from MODBUS Master through MQTT broker`

DNP3 +

Supported Models	TCP Master, DNP3 Outstation

Monitoring & Management +

WEB UI	HTTP/HTTPS, status, configuration, FW update, CLI, troubleshoot, event log, system log, kernel log
FOTA	Firmware update from server, automatic notification

System Characteristics +

CPU	MediaTek, 580 MHz, MIPS 24KEc
RAM	128 MB, DDR2
FLASH Storage	16 MB, SPI Flash

Firmware/Configuration +

Web UI	Update FW from file, check FW on server, configuration profiles, configuration backup
FOTA	Update FW
Remote Mgmt. System	Update FW/configuration for multiple devices at once
Keep Settings	Update FW without losing current configuration

Firmware Customization +

Operating System	OpenWrt based Linux OS
Supported Languages	Busybox shell, Lua, C, C++
Developmental Tools	SDK package with build environment provided

Input / Output +

Input	1 x Digital Input, 0 - 6 V detected as logic low, 8 - 30 V detected as logic high
Output	1 x Digital Output, Open collector output, max output 30 V, 300 mA
Events	Email, Remote Management System, SMS
I/O Juggler	Allows to set certain I/O conditions to initiate event

Power +

Connector	4-pin industrial DC power socket
Input Voltage Range	9~30 VDC, reverse polarity protection; surge protection >31 VDC 10us max
I/O Juggler	Passive PoE over spare pairs. Possibility to power up through LAN port, not compatible with IEEE802.3af, 802.3at and 802.3bt standards, Mode B, LAN1 Port, 9 - 30 VDC
Power Consumption	< 6.5 W Max

Physical Characteristics +

Ethernet	2 x RJ45 ports, 10/100 Mbps
I/O's	1 x Digital Input, 1 x Digital Output on 4-pin power connector
Status LEDs	3 x Connection type status LEDs, 5 x Connection strength LEDs, 2 x LAN status LEDs, 1 x Power LED
SIM	1 x SIM slot (Mini SIM – 2FF), 1.8 V/3 V, external SIM holder
Power	1 x 4-pin power connector
Antennas	2 x SMA for LTE, 1 x RP-SMA for Wi-Fi antenna connectors
Reset	Reboot/User default reset/Factory reset button

Physical Specifications +

Casing Material	Aluminum housing, plastic panels
Dimensions (WxHxD)	83 x 25 x 74 mm
Weight	125 g
Mounting Options	Bottom and sideways DIN rail mounting slots

Operating Environment +

Operating Temp	-40 °C to 75 °C
Operating Humidity	10% to 90% non-condensing
Ingress Protection	IP30 Rating

Specifications

Regulatory Type & Approval   +

Regulatory	FCC, CE/RED, UKCA, CB

Package Contents   +

Router

QIG (Quick Installation Guide)

RF   +

Standards	EN 300 328

Safety   +

Standards	EN IEC 62311:2020, EN 50665:2017, EN IEC 62368-1:2020+A11:2020, IEC 62368-1:2018

Dimensions   +

(W x H x D)	83 x 25 x 74 mm / 125 g

Dimensions