EasyCell

Hardened 4G LTE CAT4 Router w/HexaCloud Device Monitoring & WAN Failover



Overview

Fast & Reliable Speeds

4G LTE Cat 4 connectivity up to 150 Mbps download and 50 Mbps upload speeds.

HexaCloud Cloud Device Monitoring

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

Uninterrupted Connections with 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.

Enabled with Auto APN

EasyCell's Auto APN allows the device to analyze the SIM card and automatically select the correct APN.

Hotspot Functionality

Provides a direct connection between the mobile ISP and LAN devices. Acts as a wireless access point with hotspot functionality.

Specifications

Mobile

Module

4G (LTE) – Cat. 4 up to 150 Mbps DL / 50 Mbps UL

Supported Bands

4G (LTE-FDD): B2, B4, B5, B12, B13, B14, B66, B71

3G: B2, B4, B5

3GPP Release

Release 11

Status

Signal strength (RSSI), SINR, RSRP, RSRQ, EC/IO, RSCP, bytes sent/received, connected band, IMSI, 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

SSID/ESSID

SSID stealth mode and access control based on MAC address

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

LAN

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

Firewall

Pre-configured firewall rules can be enabled via WebUI, unlimited firewall configuration via CLI; DMZ; NAT; NAT-T

Attack prevention

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

VPN

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

IPsec

IKEv1, IKEv2, with 14 encryption methods for IPsec (3DES, DES, AES128, AES192, AES256, AES128GCM8, AES192GCM8, AES256GCM8, AES128GCM12, AES192GCM12, AES256GCM12, AES128GCM16, AES192GCM16, AES256GCM16)

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)

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 modes

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. Sys.

Update FW/configuration for multiple devices at once

Keep settings

Update FW without losing current configuration

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

PoE (passive)

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

EASYCELL-PWR Parameter & Rated Value

Input Connector
4-way screw terminal

Output Connector
4-pin, 3mm pitch

Cable
4x0.129 mm2 (26 AWG), 2000 mm

RoHS Compliant
V

EASYCELL-PWR Color Coding

1 Red
Power +

2 Black
Ground -

3 Green
Input/Output/NC

4 White
Input/Output/NC

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 temperature
-40 °C to 75 °C

Operating humidity
10% to 90% non-condensing

Ingress Protection
IP30 Rating

Regulatory and Type Approval

Regulatory
FCC, CE/RED, UKCA, CB

Package Contents

Router

Compact Cellular Antennas

Compact Wi-Fi Antenna

Power Cable (4-Pin Terminal)

SIM Needle Kit

Compact DIN Rail Kit

Quick Start Guide (QSG)

RF

Standards
EN 300 328

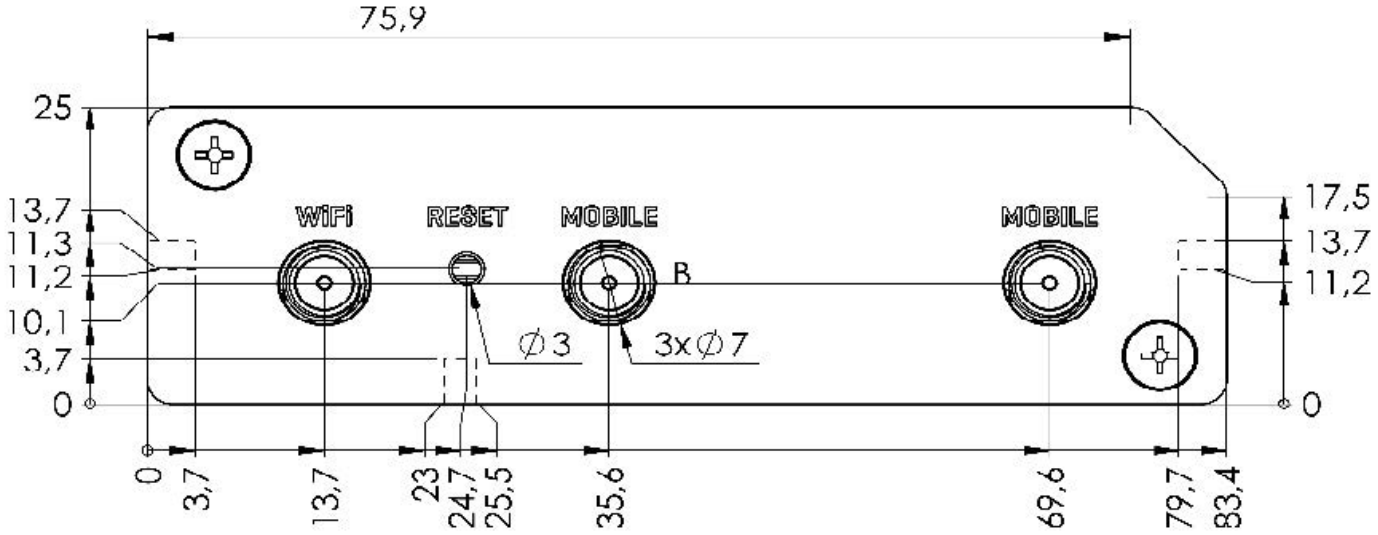
Safety

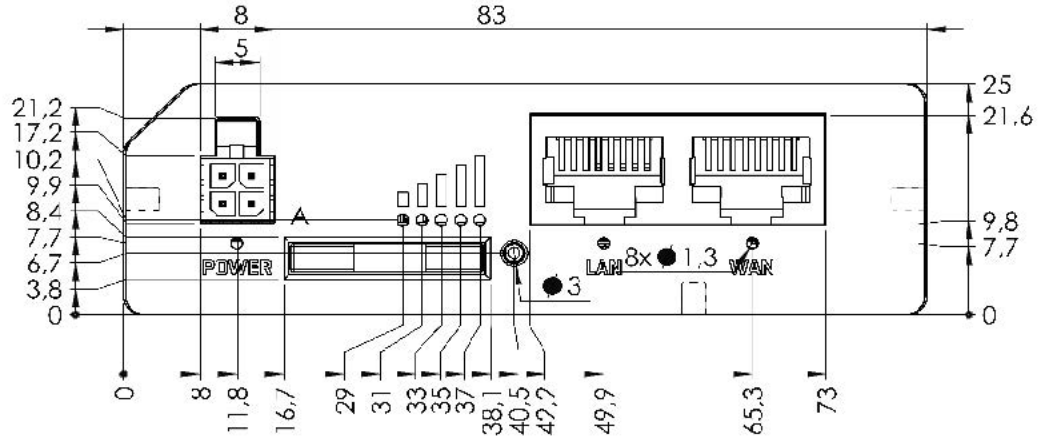
Standards
EN IEC 62311:2020, EN 50665:2017, EN IEC 62368-1:2020+A11:2020, IEC 62368-1:2018

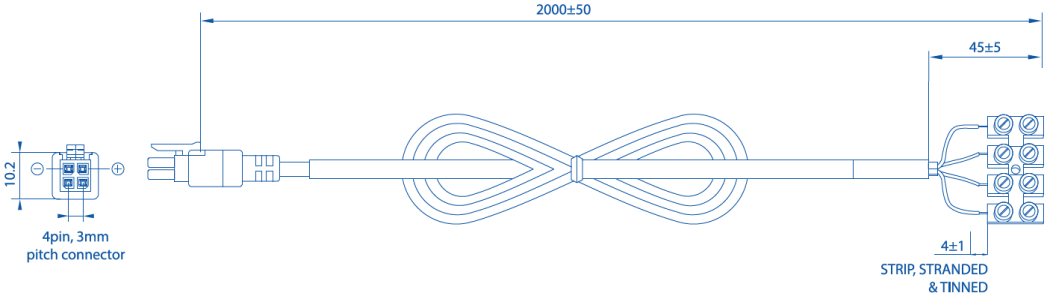
Dimensions

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

Dimensions


75,9
25
13,7
11,3
11,2
10,1
3,7
0
WiFi
RESET
MOBILE
MOBILE
B
Ø3
3xØ7
17,5
13,7
11,2
0
0
3,7
13,7
23
24,7
25,5
35,6
69,6
79,7
83,4


8
83
5
21,2
17,2
10,2
9,9
8,4
7,7
6,7
3,8
0
25
21,6
9,8
7,7
0
A
POWER
LAN
8x 1,3
WAN
3
0
8
11,8
16,7
29
31
33
35
37
38,1
40,5
42,2
49,9
65,3
73


2000±50
45±5
10.2
4pin, 3mm
pitch connector
4±1
STRIP, STRANDED
& TINNED

Ordering Information

Model

EasyCell	Hardened 4G LTE Cellular Router with Wi-Fi, and Two RJ45 Ports

Accessories

EASYCELL-ACP	AC Wall Adapter (indoor / desktop use only)
EASYCELL-ANT-LTC	Cellular (LTE) Compact Antenna for EasyCell
EASYCELL-ANT-OUT	Outdoor LTE/Wi-Fi Antenna for EASYCELL
EASYCELL-ANT-RFT	MOBILE MIMO External Antenna for EASYCELL
EASYCELL-ANT-WFC	WiFi Compact Antenna 2.4GHz for EasyCell
EASYCELL-CDN	COMPACT DIN RAIL KIT (PLASTIC) for EasyCell
EASYCELL-CDT	EASYCELL HEXACLOUD VPN CREDIT
EASYCELL-DIN	DIN RAIL KIT for EasyCell / EasyCell5G
EASYCELL-PWR	POWER CABLE WITH 4-WAY SCREW TERMINAL
POEPOWEREZ	INDUSTRIAL GIGABIT 802.3AF/AT ACTIVE TO PASSIVE POE CONVERTER AND PASSIVE INJECTOR
EPOW-24-60	HARDENED NEMA TS2 POWER SUPPLY 24V 60W

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