

# Resilience Gateway ACM7000-L

With Smart OOB™ and Failover to Cellular™



## Features

- Smart OOB with Failover to Cellular
- Maintain network connectivity during failures with IP Passthrough
- Available with 4 port embedded switch
- Flexibility with built-in 4 USB console ports
- New highspeed global cellular modem - LTE-A Pro
- Built-in digital I/O and high voltage I/O
- Compact and powerful hardware with integrated 4 GB internal storage



<b>Console Specifications</b>	
Console Ports	ACM7004-2-L – 4 x RJ45 RS-232 Cisco straight pinout console ports ACM7004-5-L – 4 x RJ45 RS-232 Cisco straight pinout console ports and 4 port embedded Gigabit Switch ACM7008-2-L – 8 x RJ45 RS-232 Cisco straight pinout console ports
<b>Interface</b>	
Ethernet Ports	ACM7004-2-L – 2 x 10/100/1000 Ethernet ACM7004-5-L – 4 x 10/100/1000 Ethernet Switch and 1 x 10/100/1000 Ethernet/SFP Uplink ACM7008-2-L – 2 x 10/100/1000 Ethernet All Ethernet/SFP Fiber port with 1500V AC Isolation and ESD Protection
Serial Ports	Cisco straight 50 to 230,400 bps
USB Ports	4 x USB 2.0 Console Ports
Remote Access	Integrated 4G LTE Cellular Card, Dual Ethernet, aggregation & redundancy, Automatic Network Failover, Easy browser UI, IPv6
I/O Ports	2 x TTL level Digital I/O ports (DIO) 5V DC max @ 20mA (supports external water /smoke / motion dry contact sensors) 2 x High Voltage Digital Outputs (HVDO) 5-30V DC@ 100mA (drives relays, alarms, etc.)
Console Management	Built-in web terminal SSH direct to consoles Optional console keystroke logging Alert on cable disconnects, text pattern match and more Inline power control Multiple concurrent sessions
<b>Power Requirements</b>	
Power Adapter	110-240V AC to 12V DC external power adapter PSE Mark, BIS Mark
Power Consumption	Less than 11.5W
<b>Physical Dimensions</b>	
Dimensions and Weight	5 1/8 x 4 3/4 x 1 3/8 in – 1.3 lbs., 13 x 12 x 3.5 cm - 0.6 kg
Form Factor	Compact
<b>Memory &amp; CPU</b>	
CPU	800 MHz Armada 370 ARMv7 SoC (Marvell 88F6W11)
Memory	256 MB DDR3 SDRAM 32 MB Embedded NOR Flash
Internal Storage	4 GB NAND Flash
<b>Environmental</b>	
Operating Temperature	-25°C to 60°C, -13°F to 140°F
Storage Temperature	-40°C to +75°C, -40°F to +167°F
Humidity	5% to 90%
Environmental Monitoring	Internal temperature sensor and external serial EMD5000 device supports physical, smoke, water leak, vibration sensors
MTBF	100,000 Hours (Power Supply)
<b>Security, Encryption &amp; Authentication</b>	
	SSH FIPS-140-2 compliant Open SSL Module Strong ciphers -AES encryption Cisco-compatible IPsec OpenVPN AAA – TACACS+, RADIUS, Active Directory/OpenLDAP, Kerberos, with local fallback Two-factor authentication via remote AAA Configurable stateful firewall Actively developed & support and security notifications-frequent firmware updates
<b>Automation &amp; Scalability</b>	
	ZTP, Lighthouse RESTful API, programmable and extensible Auto-Response, SNMP, LLDP, NTP
<b>Cellular</b>	
Modules	Sierra Wireless EM7565 Cat-12 600Mbps/150Mbps (Download/Upload) AT&T and Verizon Certified
Cellular Certification	MIC-R and MIC-T Certified Japanese carriers PTCRB, GCF KDDI/docomol/Softbank/Telstra (Coming Soon)
<b>Certifications</b>	
Emissions	EN 55022:2010, CISPR 22:2008, FCC Part 15 Subpart B:2015, ICES-003 Issue 5 (2014), AS/NZS CISPR 22:2009+A1:2010, EN 61000-3-2:2006/A2:2009, EN 61000-3-3:2008 EN 55024:2010, CISPR 24:2010,
Immunity	EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010, EN 61000-4-4:2004+A1:2010, EN 61000-4-5:2006, EN 61000-4-6:2009, EN 61000-4-8:2010, EN 61000-4-11:2004 CE, UL 1950, TUV, C-Tick, RoHS compliant, Security features to support NERC CIP standards, FIPS 140-2 validated module Certificate #2473
<b>Other Agency Approvals</b>	

## Available Models

	Model	Description
4 Port Serial Console	ACM7004-2-L	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, Global cellular LTE-A Pro
4 Port Serial + 4 Port Switch	ACM7004-5-L	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, Global cellular LTE-A Pro
8 Port Serial Console	ACM7008-2-L	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, Global cellular LTE-A Pro

## Package Checklist

- Resilience Gateway
- External rack mount tab
- Black terminal block
- 2 x Blade antennas
- DB9F-RJ45 adapter
- 4 x Rubber feet
- 12v Global Power Supply
- Antenna Extension Kit
- Quick Start Guide

## Optional Accessories

	Part Number	Description
Adapters	319014	Adapter - DB9F to RJ45 straight serial - DCE -For X2 Pinout
	319015	Adapter - DB9F to RJ45 crossover serial - DTE -For X2 Pinout
	319016	Adapter - DB9M to RJ45 straight serial - DCE - For X2 Pinout
Environmental	EMD5000-02	Environmental Monitoring Device - X2 Pinout
	EMD5781-10	Door contact sensor - 10' Cable length
	EMD5782	Vibration sensor - 3' Cable length
	EMD5779-Q	Smoke detector/alarm (220V AC, IEC C-13)
	EMD5890-QA	Smoke detector/alarm (110V AC, NEMA 5-15)
Mounting	EMD5780	Water leak detector - 3' Cable length
	590003	Rack Mount Kit - Ears and Screws - ACM7000
	590012	DIN Rail - ACM7000
Power Supply	590033	Rack Mount Tray - All ACM Series
	450031	Power Supply – 12VDC Four Chamber Square Connector - ACM7000
	450032	Power Supply – External AC 12V with IEC input
Cellular	SDC48-12V-4PIN	Power Supply – External D/C 12v (36v to 72v) - ACM7000 Models
	569018	Antenna - GPS Active - 6' Cable length - For all 4G LTE Cellular units
	569028	Antenna - 5" Blade 4G LTE with swivel base (-LMx models)
	449041	Antenna Extender - Magnetic Base with 10' Cable
	590051	Antenna Extension Kit
	569041	Antenna - Blade LTE-A with swivel base (-L model)

## Warranty

Part Number	Description
Included	4-year standard warranty
OGEXTWAR5-ACM70	Warranty ACM7000 (Extends to 5th year warranty)
OGEXTWAR6-ACM70	Warranty ACM7000 (Extends to 6th year warranty)

# Resilience Gateway ACM7000-LMx

With Smart OOB™ and Failover to Cellular™



## Features

- Smart OOB with Failover to Cellular
- Maintain network connectivity during failures with IP Passthrough
- Available with 4 port embedded switch
- Flexibility with built-in 4 USB console ports
- Multicarrier cellular modules for carrier diversity
- Built-in digital I/O and high voltage I/O
- Compact and powerful hardware with integrated 4 GB internal storage



<b>Console Specifications</b>	
Console Ports	ACM7004-2-LMx – 4 x RJ45 RS-232 Cisco straight pinout console ports ACM7004-5-LMx – 4 x RJ45 RS-232 Cisco straight pinout console ports and 4 port embedded Gigabit Switch ACM7008-2-LMx – 8 x RJ45 RS-232 Cisco straight pinout console ports
<b>Interface</b>	
Ethernet Ports	ACM7004-2-LMx – 2 x 10/100/1000 Ethernet ACM7004-5-LMx – 4 x 10/100/1000 Ethernet Switch and 1 x 10/100/1000 Ethernet/SFP Uplink ACM7008-2-LMx – 2 x 10/100/1000 Ethernet All Ethernet/SFP Fiber port with 1500V AC Isolation and ESD Protection
Serial Ports	Cisco straight 50 to 230,400 bps
USB Ports	4 x USB 2.0 Console Ports
Remote Access	Integrated 4G LTE Cellular Card, Dual Ethernet, aggregation & redundancy, Automatic Network Failover, Easy browser UI, IPv6
I/O Ports	2 x TTL level Digital I/O ports (DIO) 5V DC max @ 20mA (supports external water /smoke / motion dry contact sensors) 2 x High Voltage Digital Outputs (HVDO) 5-30V DC@ 100mA (drives relays, alarms, etc.) Built-in web terminal SSH direct to consoles
Console Management	Optional console keystroke logging Alert on cable disconnects, text pattern match and more Inline power control Multiple concurrent sessions
<b>Power Requirements</b>	
Power Adapter	110-240V AC to 12V DC external power adapter
Power Consumption	PSE Mark Less than 11.5W
<b>Physical Dimensions</b>	
Dimensions and Weight	5 1/8 x 4 3/4 x 1 3/8 in – 1.3 lbs., 13 x 12 x 3.5 cm - 0.6 kg
Form Factor	Compact
<b>Memory &amp; CPU</b>	
CPU	800 MHz Armada 370 ARMv7 SoC (Marvell 88F6W11)
Memory	256 MB DDR3 SDRAM 32 MB Embedded NOR Flash
Internal Storage	4 GB NAND Flash
<b>Environmental</b>	
Operating Temperature	-25°C to 60°C, -13°F to 140°F
Storage Temperature	-40°C to +75°C, -40°F to +167°F
Humidity	5% to 90%
Environmental Monitoring	Internal temperature sensor and external serial EMD5000 device supports physical, smoke, water leak, vibration sensors
<b>Security, Encryption &amp; Authentication</b>	
	SSH FIPS-140-2 compliant Open SSL Module Strong ciphers -AES encryption Cisco-compatible IPsec OpenVPN AAA – TACACS+, RADIUS, Active Directory/OpenLDAP, Kerberos, with local fallback Two-factor authentication via remote AAA Configurable stateful firewall Actively developed & support and security notifications-frequent firmware updates
<b>Automation &amp; Scalability</b>	
	ZTP, Lighthouse RESTful API, programmable and extensible Auto-Response, SNMP, LLDP, NTP
<b>Cellular</b>	
Modules	ACM700x-LMR – Sierra Wireless MC7304 ACM700x-LMx and ACM700x-LMCx – Sierra Wireless MC7354 ACM700x-LMP – Sierra Wireless MC7430 AT&T and Verizon Certified
Cellular Certification	MIC-R and MIC-T Certified Japanese carriers PTCRB, NAPRD.03, GCF-CC, R&TTE, EN 301 511, A-Tick (GSM/UMTS) CDG TIA/EIA-690, CDG TIA/EIA-98-E (CDMA/EV-DO)
<b>Certifications</b>	
Emissions	EN 55022:2010, CISPR 22:2008, FCC Part 15 Subpart B:2015, ICES-003 Issue 5 (2014), AS/NZS CISPR 22:2009+A1:2010, EN 61000-3-2:2006/A2:2009, EN 61000-3-3:2008
Immunity	EN 55024:2010, CISPR 24:2010, EN 61000-4-2:2009, EN 61000-4-3:2006+A2:2010, EN 61000-4-4:2004+A1:2010, EN 61000-4-5:2006, EN 61000-4-6:2009, EN 61000-4-8:2010, EN 61000-4-11:2004
Other Agency Approvals	CE, UL 1950, TUV, C-Tick, RoHS compliant, Security features to support NERC CIP standards, FIPS 140-2 validated module Certificate #2473
Warranty	4 Years hardware and support

## Available Models

	Model	Description
<b>4 Port Serial Console</b>	ACM7004-2-LMA	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, AT&T 4G LTE cellular
	ACM7004-2-LMV	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, Verizon 4G LTE cellular
	ACM7004-2-LMR	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, Rest of World 4G LTE cellular
	ACM7004-2-LMCT	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, Telus 4G LTE cellular
	ACM7004-2-LMCR	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, Rogers 4G LTE cellular
	ACM7004-2-LMP	4 x serial Cisco Straight pinout, 2 x GbE Ethernet, APAC 4G LTE cellular
<b>4 Port Serial + 4 Port Switch</b>	ACM7004-5-LMA	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, AT&T 4G LTE cellular
	ACM7004-5-LMV	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, Verizon 4G LTE cellular
	ACM7004-5-LMR	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, Rest of World 4G LTE cellular
	ACM7004-5-LMCT	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, Telus 4G LTE cellular
	ACM7004-5-LMCR	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, Rogers 4G LTE cellular
	ACM7004-5-LMP	4 x serial Cisco Straight pinout, 1 x GbE Ethernet or fiber SFP & 4 x port GbE switch, APAC 4G LTE cellular
<b>8 Port Serial Console</b>	ACM7008-2-LMA	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, AT&T 4G LTE cellular
	ACM7008-2-LMV	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, Verizon 4G LTE cellular
	ACM7008-2-LMR	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, Rest of World 4G LTE cellular
	ACM7008-2-LMCT	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, Telus 4G LTE cellular
	ACM7008-2-LMCR	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, Rogers 4G LTE cellular
	ACM7008-2-LMP	8 x serial Cisco Straight pinout, 2 x GbE Ethernet, APAC 4G LTE cellular

## Package Checklist

- Resilience Gateway
- External rack mount tab
- Black terminal block
- 2 x 4G LTE blade antennas
- Dual SIM holder
- DB9F-RJ45 adapter
- 4 x Rubber feet
- 12v Global Power Supply
- Quick Start Guide

## Optional Accessories

	Part Number	Description
<b>Adapters</b>	319014	Adapter - DB9F to RJ45 straight serial - DCE -For X2 Pinout
	319015	Adapter - DB9F to RJ45 crossover serial - DTE -For X2 Pinout
	319016	Adapter - DB9M to RJ45 straight serial - DCE - For X2 Pinout
<b>Environmental</b>	EMD5000-02	Environmental Monitoring Device - X2 Pinout
	EMD5781-10	Door contact sensor - 10' Cable length
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	EMD5779-Q	Smoke detector/alarm (220V AC, IEC C-13)
	EMD5890-QA	Smoke detector/alarm (110V AC, NEMA 5-15)
	EMD5780	Water leak detector - 3' Cable length
<b>Mounting</b>	590003	Rack Mount Kit - Ears and Screws - ACM7000
	590012	DIN Rail - ACM7000
	590033	Rack Mount Tray - All ACM Series
<b>Power Supply</b>	450031	Power Supply - 12VDC Four Chamber Square Connector - ACM7000
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<b>Cellular</b>	569018	Antenna - GPS Active - 6' Cable length - For all 4G LTE Cellular units
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