SysLINK® Family of IoT / M2M Modular Gateways

SYSTECH CORPORATION ®

SL-4000   SL-3000   SL-2000

SL-1500 / SL-1000   SL-0900 / SL-800   SL-0600 / SL-500

Modular Option Cards

APPLICATIONS

M2M / IoT

Retail / Point-of-Sale

Home / Building Automation

Security / Surveillance

Energy Management

Mobile Health

- **Modular**
- **Secure**
- **Robust**

FEATURES

Configurable router for M2M and IoT applications

Remote monitoring & management

Field upgradable option cards including:

- 3G and 4G cellular
- Wi-Fi, Bluetooth
- ZigBee, Z-Wave
- Serial, Dial, GPIO, GPS

Dual Cellular option

Network failover option for reliable communication in business critical applications

VPN option with client and server support

PA-DSS certified for financial transactions

The Systech® SysLINK® IoT / M2M Gateway enables remote access to a wide variety of sensors and devices for monitoring and control purposes.

The SysLINK M2M Gateway is a full-function router, including DHCP and NAT. Optional Advanced Routing includes firewall capabilities. With enterprise quality remote management, network configurations can be changed or updated remotely. The VPN option supports client and server modes using IPSec or OpenVPN.

Support for a wide range of M2M and IoT applications is achieved with modular option cards that may be populated to extend the features and functionality of the gateway. Option cards may also be installed on location.

The network failover feature provides a connection hierarchy for transitioning from one network to another based on current network health status. The priority sequence may be uniquely defined for any application, and includes

cellular, Ethernet, Wi-Fi, and Analog/Dial POTS ports.

Most models support two cellular modules in the same gateway (and dual SIM). The gateway continuously analyzes connection quality and will automatically switch to an alternative cellular network when required. The network failover and dual cellular features decrease downtime and provides more reliable network connectivity.

The SysLINK gateway includes an embedded Linux operating system and processor enabling execution of local software. Your own custom software may be integrated to provide application-specific, value-added features to provide a truly unique solution. Systech provides the tools for a unified development environment supporting Java, C, C++, Python, Lua, and other programming and scripting languages.

HYPER-TECH Systems

Bridging the Connected World

SPECIFICATIONS
(see table for availability on specific models)

Wireless Communication Options

Integrated Cellular: LTE, EVDO, CDMA, HSPA+, GSM, GPS*, SMA antenna connectors

Option for 2 modems with automatic failover

Mini-SIM, 1.8v and 3v

Automatic repair of cellular connection

Wi-Fi b/g/n, n=2x2 MIMO*, Access Point and Client modes, WEP, WPA, WPA2, two SSIDs with independent network settings*, up to 32 connections, Reverse female SMA connectors

Bluetooth 4.0 (LE & classic), internal antenna

ZigBee, internal antenna

Z-Wave Plus, internal antenna

Wired Communication Options

Analog dial: RJ-11, up to V.92

Automatic dial backup: up to V.92

Ethernet: 10/100 Mbps, up to 4 RJ-45 ports

Serial: RS-232/422/485, DTE/DCE

USB 2.0: Type A, Host

External General Purpose I/O option

Internal Sensor Options

Accelerometer, Temperature

Standard Router Features

NAT, 802.1X Ethernet port security

Routing rules

Route management

Local DHCP Server

DHCP client

Advanced Router Options
(requires –AR option)

MAC address whitelist filtering

IP Address Whitelist filtering

SPI Firewall with DNAT, SNAT, filter rules

Port Access

Port Redirection

Port Forwarding

IP Pass-through

ICMP/Ping flood

Ping Ignore

DMZ

VPN Options
(requires –VPN software option)

Client or Server VPN

Open VPN & IPSec tunnel, NAT-T, and transport modes

Certificate support

Hash – MD5, SHA

Encryption – AES, 3DES, DES

Up to 5 concurrent connections

Failover Option
(requires –AR software option)

Failover & fallback among all interfaces with selectable priorities

Ex: Cellular, Dual-cellular, Wi-Fi, Ethernet, Modem

Power

90-264 VAC power adapter

5 VDC with locking barrel connector

9-24 VDC option

Typical power 1.5W (with no installed options), Max 20W

Applications

Remote Port Access

Network to serial interface

IPG payment processing including SSL security

Status monitoring

IoT/M2M with SysMAP software (available separately)

Processor

400 MHZ ARM9G25 or ARM9G45

Embedded Linux 3.2

256 MBytes Flash (128 Mbytes mirrored)

128-256 MBytes RAM

Management

Remote management included at no charge

Local access via Web-based interface

Remote access via Cloud-based interface (HTTP, HTTPS)

Remote firmware upgradable

Configuration files for save and restore

Auto reboot

Ping test

CLI over SSH

Integrated help documentation

Integrated SSL security

Environmental

Operating Temp: -10° to 60°C

Storage Temp: -30° to 65°C

Operating Relative Humidity (non-condensing) 10%-85%

Storage Relative Humidity (non-condensing) 5%-90%

Certifications

PA-DSS (for PCI compliance)

FCC Class B, CE

UL, IEC

Cellular: AT&T, GFC, PTCRB, Rogers, Sprint, Verizon

Z-Wave Plus

RoHS - EU Directive 2002/95/EC

Patented Technology

Licensed for Wireless Network Patent Portfolio, including all known mesh network patents

Dual cellular (patent pending)

Note *: Future feature

Available Options Table

Option Tag	Description	Slot type
CVE	Verizon EVDO	PF
CVL	Verizon LTE	PF
CV4	Verizon LTE only*	PF
CZH	AT&T, T-Mobile, Rogers, Europe HSPA+	PF
CSE	Sprint EVDO	PF
W	Wi-Fi	PH[2]
GPS	GPS (slot still avail for Wi-Fi)	PH
P	Analog POTS	W
S2	Serial RS-232[1]	W
S24	RS-232/485	W
MD	Dial Backup Modem	N[3]
SI2	Serial RS-232 Isolated[1]	N[3]
SI4	Serial RS-485 Isolated[1]	N[3]
B	Bluetooth LE	N[3]
ZB	ZigBee	N[3]
ZW	Z-Wave	N[3]
TM	Internal Temp & Motion	Motherboard
E2	Additional Ethernet	Motherboard
MV	Extended Voltage (9-24v)	Motherboard
M2	256MB RAM (w/ G45 CPU only)	Motherboard
SDxxx	32, 64, 128GB SD	Motherboard
GPExxx	GPIO	USB
AR	Advanced Routing	Software
VPN	VPN	Software

Note 1: Special order option.
Note 2: All PH-type (PCIe half) cards fit in PF (PCIe full) slots.
Note 3: All N-type (narrow) cards fit in N and W (wide) slots.

Model Configurations Table

Model	PF slots	PH slots	W slots[3]	N slots	Total slots	Ethernet	USB	Board Options	CPU[6]	Size
SL-4000	2	1	2	2	7	4	2	-	G45	1.25 x 12.00 x 5.25"
SL-3000	2	1	2	-	5	3	2	-	G45	1.25 x 10.19 x 5.25"
SL-2000	1	1	1	-	3	2	1	-	G25	1.25 x 7.56 x 5.25"
SL-1500	2	1	-	2[5]	5	1, 2	1	B, TM, E2, MV	G45	1.31 x 8.00 x 4.63"
SL-1000	2	1	-	-	3	1, 2	1	E2	G25	1.31 x 8.00 x 4.63"
SL-0900*	2	1	-	1[5]	3	1, 2	1	P, S249, TM, E2, MV	G45	1.31 x 8.00 x 4.63"
SL-0800	1	-	-	-	1	1, 2	0	P, S2, E2	G25	1.31 x 8.00 x 4.63"
SL-0600*	1	1	-	1[5]	3	1, 2	1,2	TM, E2, MV	G45	1.13 x 4.44 x 3.19"
SL-0500	1	-	-	-	1	1, 2	0-2	E2	G25	1.13 x 4.44 x 3.19"

Note 1: AR and VPN options available on all models.
Note 2: Dual cellular feature supported by all models that include 2 PF slots.
Note 3: All N-type (narrow) cards fit in N and W (wide) slots.
Note 4: All PH-type (PCIe half) cards fit in PF (PCIe full) slots.
Note 5: On this model, N slots support B, ZB, and ZW only.
Note 6: G45=ARM9G45 w/128MB or 256MB RAM, G25=ARMG25 w/128MB RAM.

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