

# SG-7100 Router and IDP-680 Satellite Terminal

Communications gateway for cellular and satellite.  
Reliable satellite connectivity

SIZE	
ROUTER SIZE	4.13" x 4.52" x 1.77" (105 x 115 x 45 mm)
SATELLITE SIZE	4.96" x 4.96" x 1.93" (126 x 126 x 49 mm)
PROCESSOR AND OPERATING SYSTEM	
PROCESSOR	ARM9, 450 MHz
MEMORY	64 MB
FLASH	128 MB
OPERATING SYSTEM	Linux Open WRT
APPLICATION INTERFACES	TCP/IP, UDP/IP, DHCP, HTTP, IP Router PPP, HTTP Web server, Telnet/SSH server, NAT, NMEA, GPS, IP forwarding
SECURITY	VPN (SSL v2, TLS v1), SSH server, SCP, SFTP
CELLULAR	
HSPA PENTA-BAND	800/850/1800/1900/2100 MHz diversity capability. Fallback to HSDPA/UMTS/EDGE/ GPRS
EVDO REV A DUAL-BAND	800/1900 MHz diversity capability. Fallback to CDMA 1x Rev 0 and CDMA 1xRTT
SIM	Single slot. Dual slot with telematics expansion card
SATELLITE	
SERVICE	IsatData Pro (IDP), Two-way, Global
FREQUENCY	Rx: 1525.0 to 1559.0 MHz; Tx: 1626.5 to 1660.5 MHz
ELEVATION ANGLE	Up to -5°F to +194°F / -15° to +90° C
CERTIFICATION	
REGULATORY	Router: Fully certified FCC, CE, IC, PTCRB, Satellite: CE (R&TTE, RoHS 2), FCC, IC, Anatel compliant, MSS Russia, SRCC (IDP-690 only), RCM Mark
OTHERS	Satellite: Inmarsat Type Approval, IP67
EXTERNAL INTERFACES	
ROUTER (STANDARD)	1 x 100 Mbps Ethernet
ROUTER (OPTIONAL) TELEMATICS EXPANSION CARD	1 x USB OTG, 1 x USB host 2 x RS-232 or 1 x RS-232 and 1 x RS-485 1 x CAN bus 1 x 1-wire interface 3 x Digital/Analog In 2 x Digital Out 2 x Dedicated Analog (0 to 10 V, 12 bit resolution) Accelerometer: 3-axis, 12 bit
ROUTER (OPTIONAL) SERIAL CARD	1 x RS-232
ROUTER (OPTIONAL) INDUSTRIAL SERIAL CARD	1 x RS-485, 1 x RS-232
ROUTER STATUS LEDs	Status, Communication, GPS
SATELLITE, INPUTS/OUTPUTS	4 x Analog or Digital In/Out
SATELLITE, SERIAL	1 x RS-232; 1 x RS-485
SATELLITE, ACCESSORIES	1-Wire adaptor via RS-232 port



IDP-680



SG-7100

# SG-7100 Router and IDP-680 Satellite Terminal Specifications

ENVIRONMENTAL	
ROUTER, OPERATING TEMPERATURE	-22°F to +158°F / -30°C to +70°C
SATELLITE, OPERATING TEMPERATURE	-40°F to 185°F / -40°C to +85°C
SATELLITE, DUST AND WATER INGRESS	IP67
GPS	
	Standalone GPS, Assisted GPS, gpsOneXTRA Assistance™ Wideband GPS Processing (20 MHz) for improved measurement accuracy
OPTION	Dual GPS and GLONASS with optional satellite
ELECTRICAL	
INPUT VOLTAGE	9 to 32 Volts DC; optional SAE J1455 load dump protection
POWER CONSUMPTION (TYPICAL @12 VOLTS DC)	121 mA (connected to GPRS network) 772 mA (peak transmitting, GPRS)
DEVELOPMENT SUPPORT	
M2M MESSAGING	Lua Services Framework with core services and API. SDK with GUI-based development tools
WEB SERVICES	Web server installed
OPTIONAL, CONFIGURABLE DEVICE-LEVEL APPLICATIONS	Analytics Agent – Notifications and reports for driver behavior and vehicle/asset performance. AVL Agent – Facilitates integration of IDP terminals into fleet management solutions. Garmin Dispatch Agent – Tracking, navigation, driver communication and dispatch using Garmin devices. J1939 Agent – Vehicle CAN bus connectivity for monitoring driver behaviour and vehicle/asset performance. ARC Agent – Alert on critical events, report status proactively and control simple devices remotely

## For more information

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