

# JANUS

## DUAL CAN PORTS, CARRIER FOR WIRELESS AND GPS MODULES

### SPECIFICATIONS

#### CAN CIRCUIT

CAN Channels	2, 2.0B
Controller	Philips SJA1000T
Transceiver	Philips 82C251
Isolation	500V channel to channel
Transceiver Power	5V, on-board or loop
Clock Rate	16MHz
Data Rate	1Mbps
Bus Interface	Memory or I/O

#### WIRELESS MODULES

Manufacturer	MultiTech SocketModem
Type	GSM/GPRS or CDMA
Interface	TTL serial

#### GPS MODULES

Manufacturer	Trimble Navigation
Model	Lassen SKII 8 channel Lassen IQ 12-channel
Interface	1 or 2 channel TTL serial

#### GENERAL

Dimensions	3.55" x 3.775" (90mm x 96mm)
PC/104 Bus	16-bit stackthrough ISA bus
Power Supply	+5VDC±5%@77mA (w/o modules)
Operating Temp	-40 to +85°C
Weight	2.1 oz / 59g (w/o modules)

- 3-in-1 CAN / Wireless / GPS board
- Dual CAN 2.0B interfaces
- Philips SJA1000T controllers
- Channel to channel and channel to system isolation
- Linux CAN driver included; Windows CE.NET CAN driver available
- Socket for GSM/GPRS and CDMA wireless communications modules
- Socket for GPS receiver module



**JANUS-MM** combines dual CAN interfaces as well as sockets for wireless communications and GPS. The dual CAN ports on each board use the Philips chipset, including SJA1000T main controller and 82C251 transceiver, for full CAN2.0B functionality. Each port is independently isolated from the system to eliminate sensitivity to noise and ground shifts in the network. Both boards have jumper options that include slew rate control, transceiver power source (on-board or loop power), address, and interrupt settings. Both memory and I/O addressing are supported.

A Linux driver from CAN expert lxxat is included with the board, and a Windows CE.NET driver is available. JANUS-MM includes sockets and support circuitry for GSM/GPRS and CDMA wireless communication modules from MultiTech, as well as a GPS receiver module from Trimble Navigation (both modules are available separately). Adding these modules to your system turns it into a vehicle tracker or remote data collection system with wireless communications link. A dual UART circuit on each board provides the necessary interface to the wireless and GPS add-on modules.

### ORDERING INFORMATION

Part No.	Description	Part No.	Description
JNMM-COMBO-XT	Dual CAN + Carrier PC/104 Module (w/o add-on modules)	JNMM-GPS-G-DK	Janus-MM GPS module development kit, select G from list
MOD-GPS-G	GPS Lassen Module w/ mounting hardware, select G from list	JNMM-WSM-W-DK	Janus-MM Wireless SocketModem development kit, select W from list
MOD-WSM-W	Wireless Socket Modem w/ mounting hardware, select W from list	JNMM-DUO-G-W-DK	Janus-MM GPS + WSM development kit, select G and W from lists
JNMM-GPS-G	Janus-MM with GPS module installed, select G from list	CK-GPS-G	Cable kit for Lassen iQ module, incl. transition cable + antenna, select G from list
JNMM-WSM-W	Janus-MM with Wireless SocketModem installed, select W from list	CK-WSM-01	Cable kit for SocketModem, incl. transition cable + antenna
JNMM-DUO-G-W	Janus-MM with GPS and WSM modules installed, select G and W from lists		

G	Description	W	Description (GPRS Models)	W	Description (CDMA Models)
IQ	Lassen iQ GPS module	F1	GPRS 900/1800MHz GPRS Class 10, MTSMC-G-F1, Cingular	N1	CDMA 800/1900MHz CDMA2000 1xRTT, MTSMC-C-N1
SK	Lassen SKII GPS module	F2	GPRS 850/1900MHz GPRS Class 10, MTSMC-G-F2, Cingular	N2	CDMA 800/1900MHz CDMA2000 1xRTT, MTSMC-C-N2, Sprint
				N3	CDMA 800/1900MHz CDMA2000 1xRTT, MTSMC-C-N3, Verizon
				N4	CDMA 800MHz CDMA2000 1xRTT, MTSMC-C-N4, with R-UIM