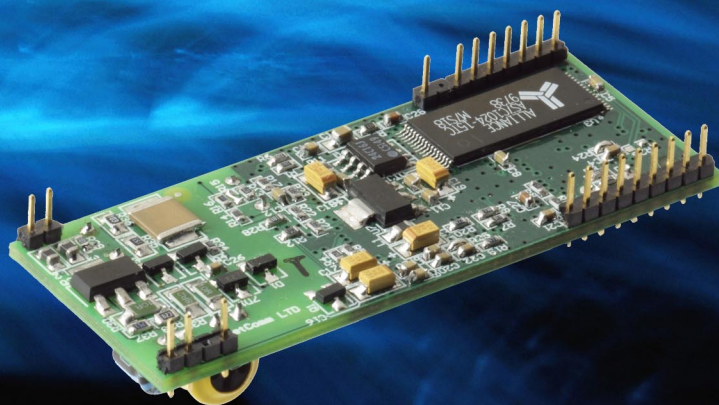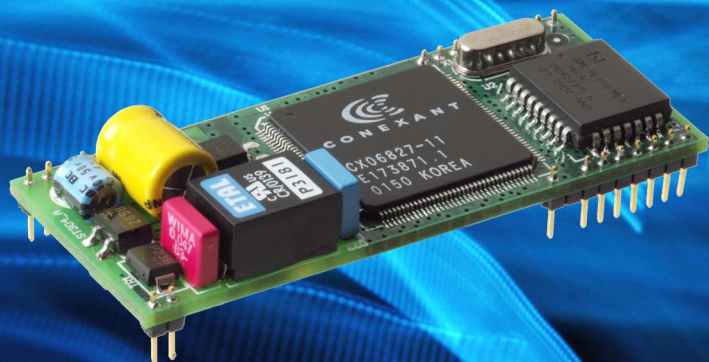# IG1000 Embedded Modem

NOW YOU CAN SLASH THE COST AND TIME IT TAKES TO ADD A MODEM TO YOUR DESIGN

The IG1000 is the first uniquely Australian developed modem that offers designers a space efficient communications module suitable for any data transfer application.

NetComm's IG1000 enables OEM's to integrate a variety of modem functions with the benefit of accessing real time data, low cost management/support, plus add-on service possibilities. International EMC and safety standards have been tested and certified, bringing the integration cost down for approval ratings on the finished product. Structured to fit into a generic industry footprint, this Conexant chipset product brings with it all the capabilities of a full hardware modem.

This product can be integrated into any device that requires data transfer via a PSTN connection, incorporating the latest V.92 technology to give your product the benefit of high upstream speeds (up to 48Kbps).
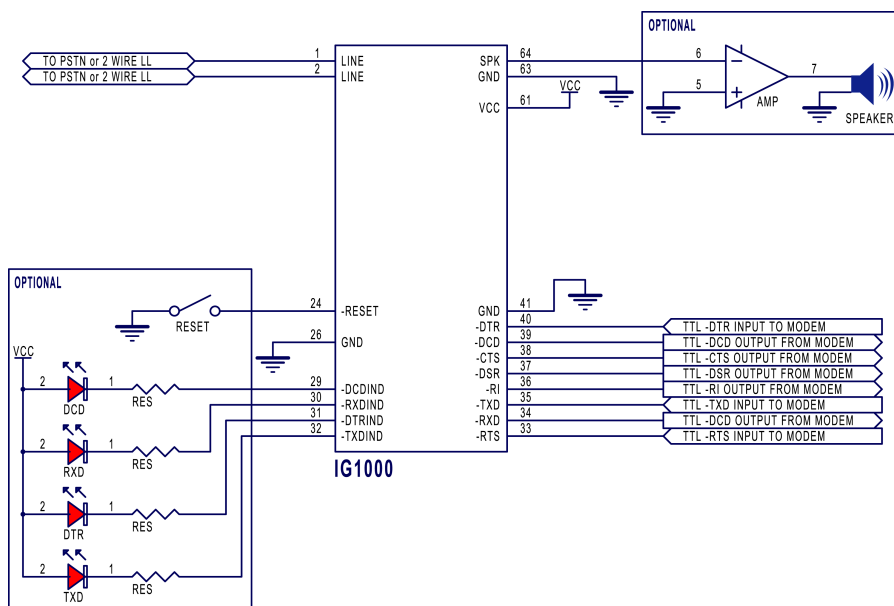
BENEFITS

- Greatly reduced approval time and costs
- Simply provide for the pinouts in your design
- Logging Data real time vs onsite time
- Low cost management and support
- Low cost networking
- End user accessibility and add-on service possibilities

Key Specifications

- V.92 – upstream rates up to 48Kbps, QuickConnect, and Modem-on-Hold functions V.92, V.90, V.34, V.32bis, V.32, V.22 bis, V.22, V.23, and V.21
- V.22 bis Fast Connect
- Bell 212A and Bell 103 2-wire Leased Line
- TAM support
- Fax Class 1 & 2
- External flash ROM includes default values for 29 countries
- Flash upgradable
- Caller ID
- Small design (25mm x 65mm)
- Extensive AT command set
- Designed in Australia
- Local Support
- Local and International Approvals: A-Tick, CB Certified, EN 55022 Class B, FCC Part 15 Class B

Developers Kit Available including test bed, power supply, RJ11 line cord and 9 pin serial cable.
Code: IG1000TEST5V - Sold Separately.

IG1000 Embedded Modem

SPECIFICATIONS

- ITU-T V.92 with PCM upstream rates up to 48 kbps, QuickConnect, and Modem-on-hold functions
- V.90, V.34, V.32bis, V.32, V.22 bis, V.22, V.23, and V.21; Bell 212A and Bell 103
- MNP 10EC™ enhanced cellular performance
- V.250 and V.251 commands
- V.22 bis fast connect
- Data compression and error correction
- V.44 data compression for optimal downloading of Internet Web pages and files
- V.42 bis and MNP 5 data compression
- V.42 LAPM and MNP 2-4 error correction
- Fax modem
- V.17, V.29, V.27 ter, and V.21 channel 2
- EIA/TIA 578 Class 1 and T.31 Class 1.0 commands
- V.80 synchronous access mode supports host-controlled communication protocols with H.324 interface support
- Upgradeable Flash ROM
- Data/Fax/Voice call discrimination
- Hardware-based modem controller and digital signal processor (DSP)
- Worldwide operation
- Call progress, blacklisting
- External flash ROM includes default values for 29 countries
- Distinctive ring detect
- Caller ID detect
- On-hook Caller ID detection
- Off-hook Call Waiting Caller ID detection during data mode in V.92, V.90, V.34 V.32bis, or V.32
- Telephony/TAM
- Leased Line Functionality
- V.253 commands
- 2-bit and 4-bit Conexant ADPCM, 8-bit linear PCM, and 4-bit IMA coding
- 8 kHz sample rate
- Concurrent DTMF, ring, and Caller ID detection
- Built-in host/DTE interface with speeds up to 230.4 kbps
- Direct mode.
- Flow control and speed buffering.
- Automatic format/speed sensing.
- Serial async TTL interface, supports speeds up to 230.4 kbps
- Industry standard pin outs
- +5V or optional +3.3V operation with +5V tolerant digital inputs
- Typical power consumption 190mA @5V (Operating on-line), 30mA (Sleep Mode).
- Size 65.6 X 26.6mm, height off base PCB 17mm

MODEM PIN SIGNALS
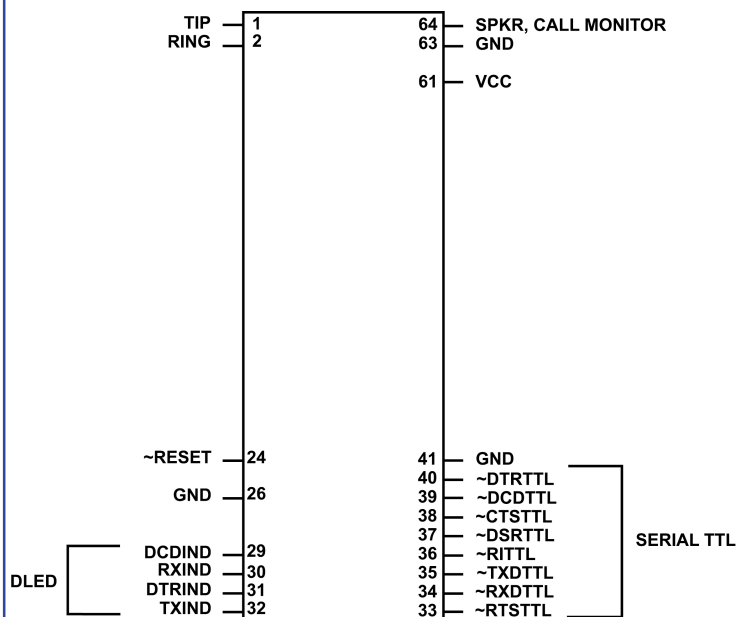
Pin Function

Pin	Function
1	Telephone Line Interface - TIP.
2	Telephone Line Interface - RING.
24	Reset, active low, 50 to 100 ms. Closure to GND for reset.
26	Ground.
29	DCD Indicator, can drive an LED anode without additional circuitry.
30	RXD Indicator; can drive an LED anode without additional circuitry.
31	DTR Indicator; can drive an LED anode without additional circuitry.
32	TXD Indicator; can drive an LED anode without additional circuitry.
33	RTS Interface, TTL levels.
34	RXD Interface, TTL levels.
35	TXD Interface, TTL levels.
36	Ring Indicator Interface, TTL levels.
37	DSR Interface, TTL levels.
38	CTS Interface, TTL levels.
39	DCD Interface, TTL levels.
40	DTR Interface, TTL levels.
41	Ground.
61	+5 VDC or +3.3 VDC Input.
63	Ground.
64	Speaker, Call Monitor.

* No pins in positions 3-23, 25, 27, 28, 42-60, and 62.

Module Product Code: IG1000C50AU
Developers Kit Product Code: IG1000TEST5V