

# SPiRiT-2

## High Performance Packet Controller

The SPiRiT-2 is the ideal TNC for 9600 bps and faster packet operation for BBS, satellite and NODE use. The SPiRiT-2 is built for reliable high performance, yet is very affordable.

Uses reliable, tested technology (G3RUH modem, TNC-2 CPU architecture) with large-scale programmable logic circuits to reduce cost for solid, reliable performance.

### Firmware Features

PacComm firmware uses TAPR style commands with many PacComm extensions and improvements, including KISS. Personal Message System features forwarding, reverse forwarding to other PMS & to BBS. Forwards via network connections or directly. Full APRS support too.

### Digital Section Features

512kbit (64k Byte) EPROM. 128k RAM provides 64k of Personal Message System storage and large send and receive buffers. TNC-2 compatible design works with any TNC-2 EPROM.

Bank-switching circuit for TheNet or ROSE network firmware. No wiring modifications required, just set jumpers. 9.8 MHz CPU clock speed and 10 MHz rated parts are standard. 20 MHz CPU option uses a xxxx clock speed.

Terminal baud rates from 9.6 kb up to 57.6 kb for satellite file downloads without dropped frames.

### Modem Features

G3RUH design modem with PLL demodulation for outstanding performance.

Two independent modem transmit and receive filter sections to allow jumper selection of either of two radio baud rates with optimum transmit and receive filtering for each.

Radio baud rates from 4.8 kb up to 57.6 kb are supported for fast satellites and network node use. (64kb on special order.)

### User Features

Six LEDs. Power (red), Connect (green), Status (yellow), Push to Talk (red), DCD (green) and OPT (a multi-purpose dual color LED). When used with the CoaxLAN, red and green indicate transmit and receive data on the LAN.

Black anodized aluminum case; rugged, attractive, and RFI/EMI resistant. Extensive RFI/EMI filtering. This is a quiet TNC!

### Reliability Features

Radio and serial port lines extensively filtered against RF and noise effects.

Major RS-232 and radio lines and power feed are protected against power spikes with on-board surge suppressors (Transorbs).



### Network Features

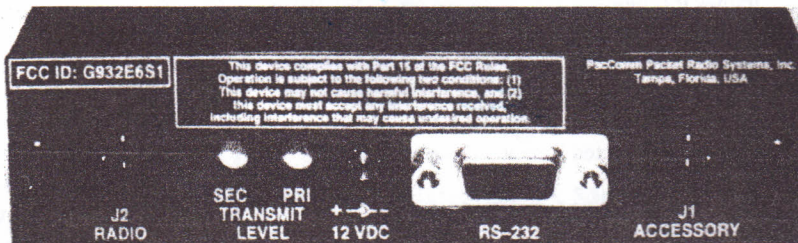
- TNC-2 EPROM compatible, TheNET X1, ROSE, and TEXNET ready, Processing power and modem performance for serious throughput.
- PacComm's CoaxLAN circuit is built in for easily inter-connecting multiple SPiRiT-2's for node stacks. Works with NET/ROM, TheNET, and ROSE. No more need for diode matrices!
- PAD model without modem circuitry attaches easily to WA4DSY MSK modem.

### SPiRiT-2 Models

**Standard Model:** 128k RAM.PacComm PMS firmware. Main modem filters configured for 9600 bps. Auxiliary modem filters unconfigured. This model is fine for terrestrial or conventional satellite use.

**Satellite Model:** 128k RAM.PacComm PMS Firmware. Modem filters for 9.6 and 38.4 kbps. Other speeds available upon request. Named the satellite model because it will operate in full duplex with 9.6 kbps transmit and 38.4 kbps receive.

**Node Model:** 32k RAM. 27C512 EPROM with PacComm Diagnostic Monitor program or blank EPROM if requested. Modem filters for 9.6 and 19.2. Other speeds upon request.



**Backbone Model:** 32 k 70 nanosecond RAM. 27C512 70 nanosecond EPROM with PacComm Diagnostic Monitor Program or blank EPROM if requested. 20 MHz CPU running 16.6 MHz. Modem filters for 9.6 and 19.2 kbps provided. 38.4kb or other speeds provided on request (please specify).

**PAD Model:** Want to drive a WA4DSY (GRAPES) MSK modem? The SPiRiT-PAD is a 20 MHz Backbone model with no modems fitted. Drives the MSK modem via the auxiliary modem header.

### All SPiRiT-2 Models include

- Operating Manual (Standard and Satellite models).
- Hardware Manual with all schematics
- Computer cable for 9 pin PC serial port.
- Unterminated radio cable.