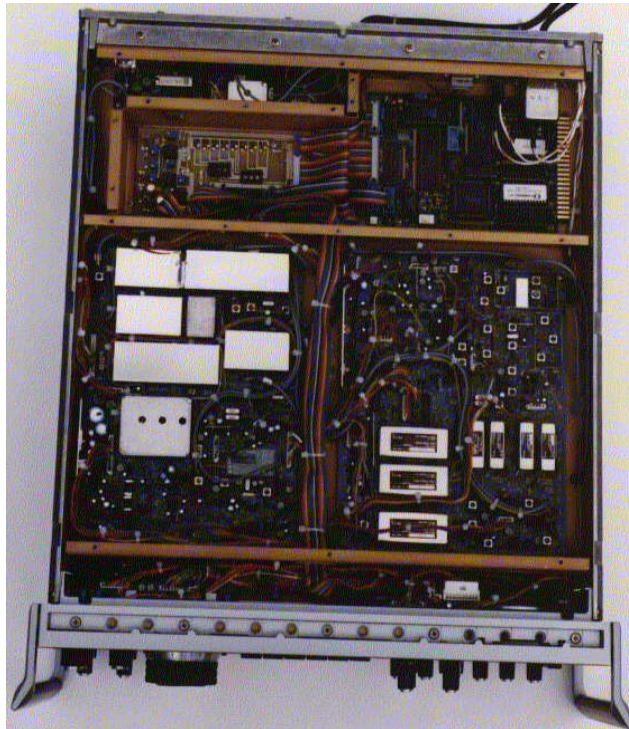


*"Each One Built As If It Were The Only One"*



Signal One Corporation  
Scottsdale, Arizona

**Signal One MILSPEC 1030 CI, HF Transceiver**



## **Unit Description**

The MILSPEC 1030 CI is a Signal One Design, incorporating all features of the ICOM 781. Portions of the MILSPEC 1030 CI are built by ICOM and integrated during manufacture. Many MILSPEC 1030 CI units are currently in use at US Marine Corps bases, world-wide (Used for reliable data communications during Gulf War). Major differences between the MILSPEC 1030 CI and the ICOM 781 include:

- Military grade chassis, with Hewlett-Packard System II+ RF enclosure and rack mounting are used for improved visual continuity, form, fit, function along with compliance with EIA and IEC standards in width, height
- Gold plated connectors and 3M ribbon cable harnessing
- Attractive exterior color, contemporary design and RF tight MILSPEC modular enclosure, offer for the ultimate in RX/TX RF communications performance in strong RF environments (i.e. contest stations, etc.)
- Dual, thermostatically controlled Rotron fans for additional temperature stability under keydown/CW/RTTY conditions
- Internal shielding in critical areas to reduce spurious signals
- Higher rated output power, using selected and matched HFE Motorola MRF 422MP final transistors (160 watts output)
- Ultra low phase noise synthesizer (-128dBc)
- -23dBm 3rd order intercept
- Improved receiver IMD performance, using HP 5082-3081 pin diodes for RF switching and the front-end attenuator
- MILSTD stable frequency control
- Correct S-meter calibration, signal strength detection circuitry for improved S-Meter sensitivity (S1=1microvolt, 6dB/S unit)
- Front panel LED Status indicators for computer, TNC, antenna switch, and mark/space indicator
- Octagon Systems embedded computer to control all unit functions.
- 140 additional computer controlled functions (See computer/software description)
- Integrated antenna control feature
- Integrated TNC for data communications (Packet/CW/RTTY/G-TOR/Pactor/AMTOR/WEFAX/KISS/KA-NODE/Gateway/PBBS. Dual Channel for added VHF packet monitoring
- Internal speaker

## **Computer Specifications**

The MILSPEC 1030 CI design incorporates an Octagon Systems 5083 micro-controller/computer (CPU is a Z80181, running at 9.216MHz). The original ICOM 781 computer and control functions are maintained for software compatibility and accessed through the MILSPEC 1030 CI's main computer.

System computer characteristics include:

- All ICOM 781 software functions
- Nearly 200 additional computer commands, including signal strength, power, and SWR readings, dual clock functions, and scanning control
- Control of external antennas via external TTL control lines (front panel status lights)
- Control of internal TNC for data communications (integrated Kantronics KAM Plus)
- Single RS-232 port control of unit, antennas, and TNC
- Programmable Digital-Analog (D-A) output line

## **Overall Software**

Signal One software consists of a set of integrated programs, written specifically for the Windows95 operating system and are true 32-bit applications, which allows for background control/monitoring of the

radio while using the computer for other tasks. The MILSPEC 1030 CI control, antenna, and data functions are accessed via a single RS-232 port. Many other commercial TNC programs may be used with the MILSPEC 1030 CI's TNC.

## **Software Specifications**

All Signal One software is accessed through a single software interface (Point and Click). Some of the software functions can be used simultaneously, such as controlling the radio and controlling the TNC. Software programs described below only work with the MILSPEC 1030 CI. Software uses a highly interactive graphical interface. Latest versions of all software will always be available via INTERNET. Software program descriptions:

- **1030CI\_Control**

Program implements functions that allow control of all major transmitter and receiver capabilities of the 1030CI. Real-time updated screen shows 1030CI outline with point and click to change specific parameters, enter discreet commands, or define Macros. Discreet functions include:

- Read/Set Frequency For Both VFOs
- Store/Recall Frequency Memory
- Read Signal Strength/Forward Power/Reflected Power/SWR
- Read/Set Antenna Switch
- Read/Set Mode
- Start/Stop Scanning
- Read/Set Clock
- Change Bandwidth Filters
- Set/Clear CW Keyline
- Read Aux. A-D Converters
- Scan A-D readings
- Perform tune and measure functions
- Read Aux. TTL inputs
- Read Peak or Average Value of last (n) S-Meter readings
- Audio On/Off
- Set/Reset Tx/Rx mode
- Macro commands and elements to automate programming

- **SWR\_Plot**

Program implements a Real-time antenna analysis function. SWR is shown graphically, after user enters a start and an end frequency or selects a pre-programmed frequency band. Update time varies, based on the frequency increment size and total frequency sweep width, but is typically a second or two.

- **Band\_Scan**

Program expands 1030CI's CRT readout to any frequency range supported by the unit. Display can be reset after each scan, or left to sum multiple scans. The multiple scan feature is extremely valuable when monitoring a band with few signals. Multiple scan also allows the user to determine where there is no activity on the band over a given time period.

- **Dead\_Band\_Search**

Program can be set to monitor for signal activity on any user specified bandwidth. The program will look for signals and mark any found that are above a user specified signal level and after a user programmed time, continue the search. Particulars on each found signal are stored and can be individually or sequentially recalled, which commands the 1030CI to go to that frequency, turn audio on and allow user control to finely search or tune the signal.

- **DX\_Info**

The 1030CI includes a full-featured TNC for data communications. The DX\_Info program allows for monitoring a packet frequency/PacketCluster station to pick-off DX spots. Upon reception of a DX spot, the 1030CI can be automatically sent to the spotted frequency and mode(based on frequency band). Spots can also be sent to the PacketCluster from the program by simply selecting SPOT, entering the callsign of the station, and clicking on the "Send Spot" button. A continuous log of received spots is maintained, with search capability. Other PacketCluster functions are easily entered from the program as a pre-programmed command or user entered.

**Pricing** (plus shipping and applicable sales tax, AZ only)

- **New Units**

*All New* MILSPEC 1030 CI \$12,600.00

- **Upgrade Your ICOM 781**

Remanufactured MILSPEC 1030 CI (requires your ICOM 781) \$ 4900.00

Computer Option (includes software, cable) \$ 1000.00

TNC Option (includes software) \$ 400.00

Complete Unit with both above options (\$200 discount) \$ 6100.00

- **CX7A, CX11A, MS1030C, and ICOM 781 Parts/Service**

All Signal One models repaired/upgraded Call for price

To order or schedule repairs/upgrades call Don Roehrs @ 602-585-4025