



## TIB™ TSAM Interface Module for MCN™ Monitoring and Control Systems



### Introduction

The TIB TSAM Interface Module is part of CTI Product's MCN™ Monitoring and Control System. It connects a TSAM Transmitter Steering Unit to the MCN Network. It extends the status indication and controls for the Transmitter Steering Unit over the network to a remote PC display position.

The TIB Comparator Interface Module is compatible with:

- CTI's TSAM Transmitter Steering Unit
- Motorola TAC, Spectra-TAC, and Digitac Comparators
- M/A-Com /G.E. Analog Voters.
- JPS SNV-12 Voters
- MCN Remote Comparator Display PC Software

### Selected Transmitter Status

The CIB module (without a TIB module) provides the following comparator status per site:

- Vote (Receiver is Voted)
- RX (Receiver is Receiving)
- Dis (Receiver is Disabled)
- Fail (Receiver is Failed)

The TIB module adds the following Selected Transmitter Status indication to the MCN system:

- Tx (Transmitter Selected)
- TX/Vote (Transmitter Selected and Receiver is voted)
- TX/RX (Transmitter Selected and Receiver is receiving)
- TX/Dis (Transmitter Selected and Receiver is Disabled)
- TX/Fail (Transmitter Selected and Receiver is Failed)

### Manual Transmitter Selection

The TIB module also allows the operator to manually select a transmitter. The operator simply moves the mouse over the transmit site to be selected and clicks the left mouse button. The TIB module selects that transmitter on the TSAM unit. That transmitter then has a "Tx" indication on the PC screen.

### PC Display

The PC display features real-time transmitter status monitoring. The receiver and transmitter site names and screen positions are user-configurable

### System Options

The following are some of the MCN system options available to work with the CIB module:

- Quad Mounting Rack (1.75" high) for mounting 4 CIBs or other size A MCN modules
- Wall-mount Brackets
- AC Power supplies for 120 or 240 VAC
- Network cables and terminators
- I/O Cables and punch blocks
- HIB Host Interface Modules, PCLTA Modules, and PC Remote Comparator Display Software
- Routers/Repeaters, Network Extenders

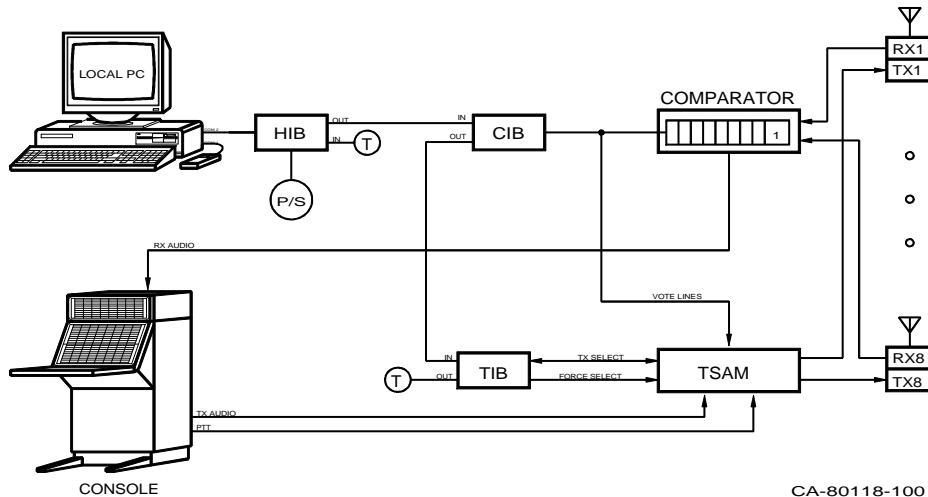
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Typical TSAM Transmitter Steering System with TIB

**How the System Works**

The TIB module is associated with a CIB Comparator Interface Module. (One CIB module is required per TIB module.) Each TIB module can control up to 8 transmitters (1 TSAM unit).

The TIB module accepts TX Selected inputs from the TSAM unit and passes the Selected TX information to the CIB module, which then passes the information to the PC.

The TIB module accepts "Force Vote" signals from the CIB module and sends TX Select and Force Vote signals to the TSAM unit.

As shown above, the Operator Interfaces may be connected to the network locally or remotely through leased-line or dial-up modems.

**Multiple TIB and TSAM Units**

If a system requires more than one TSAM unit (for more than 8 transmitters), multiple TIB units are required, one per TSAM unit.

**Multiple Displays**

The MCN System offers full parallel status and control at multiple PC Operator Interfaces. PC Displays and Console Displays may be mixed in a single system with some limitations.

**Dial-Up Applications**

For maintenance purposes, the PC display can be used over dial-up lines. Since the PC does not have to be dedicated, it may be used for other applications when not monitoring the comparator. Technicians can even diagnose after-hours system problems from home using a properly equipped PC and dial-up modem.

**General Specifications**

Size (MCN Size A):	5.5" x 4.2" x 1.5" (140 x 107 x 38 mm)
Weight:	16 oz, (455 g)
Temperature:	0-50 °C
Humidity:	10- 95% non-condensing
Transmitters controlled:	8 per TIB (one TSAM unit)
Logic Inputs:	8: TX Selected Indications Logic Levels, active low
Outputs:	8: TX Select (manual select) 1: Force Select Logic Levels, active low
Max I/O voltage:	+30 VDC
Comparator Connector	50 pin Telco style, Female
Network Connectors:	(2) RJ-45 (1 in, 1 out)
Max. network segment:	4000 ft. without repeaters
Max. TIB modules:	16 per network segment (Larger, multi-segment systems can be custom-configured.)
Network Cabling	4 Pair Level 4 UTP
Power Input	12 to 30 VDC / 2 W
Safety Approvals to:	UL 1950, CSA 1950 EN60950-1992 (CE)
Emissions Compliance:	FCC part 15, Class A IC (DOC), Class A (Canada) EN55022, Class A
Susceptibility Compliance:	IEC 801-2, 3, 4 EN50082-1