

Bidirectional TV Control Module (TCM)

The BH Communications hospital TV control system provides automated control of patient TV rentals and patient education programs. Its simple, reliable, secure and easy to install. The headend controller communicates with the TV control module (TCM) which direct the TV's status using the TV's existing SmartPort.

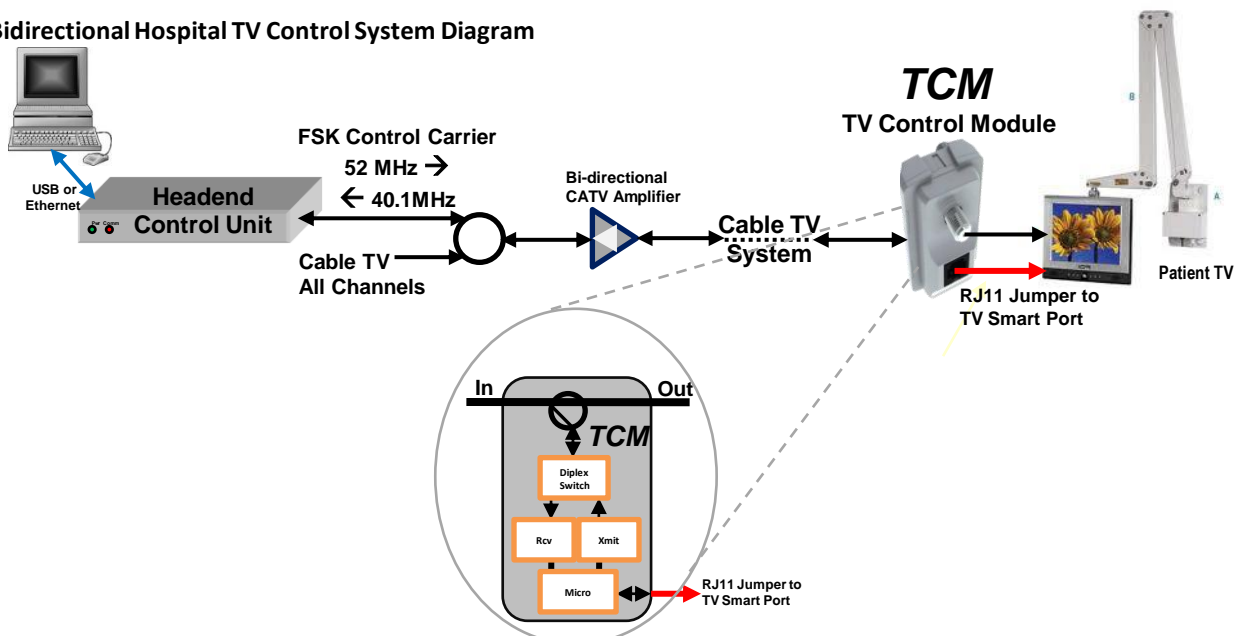
The headend controller polls the TCMs one at a time and each TCM responds back to the headend controller thus confirming TCM operation and that the TV is present and responding properly. All polled data is recorded in a data base which can be used for data mining. For example, to create a report of which channels are viewed the most or to confirm patient tuning to educational programs.

Bidirectional communications has many advantages. The TCM not only directs the TV's status, it also retrieves info from the TV and transmits it back to the headend controller and the office. For example, the TCM can report;

- The TV's service level (tier).
- The RF signal level (in dBmV) at the TCM input.
- What channel the TV is tuned to.
- The TV's selected input. (Cable, HDMI).
- The TV's volume level.
- If the TCM has been disconnected from the TV.

Powerful remote troubleshooting right from your office. Using our diagnostic software connected to the internet you can communicate with the actual TV set at any hospital located anywhere. The TCM has the ability read the RF signal level (in dBmV) at its input and can continually monitor the system for changes in signal level thereby sensing a problem before it actually occurs.

Bidirectional Hospital TV Control System Diagram



TCM Product Features & Specifications

FSK Carrier Frequencies

---> Forward Path FSK carrier frequency 52.0 MHz

<--- Reverse Path FSK carrier frequency 40.1 MHz

FSK Carrier Programming & Diagnostic Features

The system utilizes the headend TCM Controller's FSK carrier in conjunction with utility software to:

- Program The TCM's address (Group-Tap).
- Program the TCM's default state and tiering characteristics.
- Perform TCM diagnostics thus eliminating the need for a dedicated programming & diagnostic device.
- Retrieve and report TV status information.
- Globally initialize and program all TV's in the hospital.

RF Specifications

Device Bandwidth: 46 - 1000 MHz

Reverse Path FSK transmitter output: 25 dBmV @ 40.1MHz

Impedance: 75 ohms

Operating RF video range: 0 to +25 dBmV (FSK -15 to +10 dBmV)

Insertion Loss max: 2.1 dB (46 to 1000 MHz)

Return loss in-out: 16 dB

RFI: 80 dB

Tiering : The TCM controls up to 8 levels (tiers) of service.

Default state Characteristics

TCM defaults to "B" tier if No FSK control carrier is received and upon TCM power-up. Default states can be any tier.

Powering

Current consumption Less than 10 mA

Voltage 15 to 18 VDC

Power passing thru the unit from RF input to RF output - Only for required models*

Hospital TV's Supported

Samsung, LG, HCI, Sumitomo, Phillips & Zenith.

Packaging

The TCM is so compact it can be installed;

Inside the TV set*.



* Depends on TV model

**As a stand alone unit
behind the TV.**



In the electrical box

