

# Addressable Multi-Tap Control System

iCentral & AMT-Central Series



Addressable Subscriber Products are controlled with a Subscriber Management System that consist of a control computer that resides at the cable office and an FSK Transmitter located in the headend. The system provides the means of remotely controlling multiple cable television headends and distribution networks utilizing Interdiction or Addressable Multi-Taps (AMTs).

The Interdiction Subscriber Management System consists of an iCentral computer system and an FSK transmitter to control the following interdiction products: VMI, SMI, and TVCB. The AMT may be controlled either with an iCentral, AMT-Central or Sentinel Software.

The iCentral and AMT-Central are complete Subscriber Management Systems that interface with billing systems via a standard interface (System Manager 10). They interface with many billing systems including Cable Data, CSG, Great Lakes Data and Azar. The iCentral may control Interdiction products as well as AMT units. The AMT-Central only controls AMT units.

The iCentral or AMT-Central interfaces directly with the billing system. Either direct RS-232 connections or dial-up modems are used to communicate to the FSK transmitter (the ITX for TVCB or VMIU and the ATX for SMI). providing system configuration for each headend, and subscriber services.

## ○ Features & Benefits

- Scalable Configuration to Meet Varying Needs
- System Administration-Remote Terminal Access via Service Modem, Multiple Password Levels, Database Reporting Capability
- Standard Billing System Interface Specification
- Ability to Network (TCP/IP)Multiple Computers via Ethernet for Increased Capability
- Subscriber Management- Service Levels, Parental Control, PPV Management for Interdiction Products

## ○ Specifications

### Computer Hardware - Minimum

- Pentium Based PC Compatible
- 64 MB RAM
- 4 GB Hard Drive (SCSI)
- 4mm (DAT) 4 GB Tape Drive (SCSI)
- CD-ROM (SCSI)
- 1.44 MB, 3.5" Floppy Drive
- PCI SCSI Controller
- Digiboard
  - PC/16 em - 16 Port Module
    - 1 with iC108,
    - 2 with iC200,
    - 4 with iC400
  - PC/8 em - 8 Port Module
    - 1 with iC104 only
- SVGA Monitor
  - 15" Non-Interlace,
  - .28 mm dp, Color Monitor
- Mouse
- Keyboard
- Cables
  - DigiBoard 44 Pin Cable (1 per Port Module)
  - Power Cables

### Included Hardware

- 28.8 External Modem with Serial Cable

### Included Software

- UnixWare Operating System
- iCentral Application

### Optional Hardware

- Cables
  - Null Modem Cable
  - Parallel Printer Cable

## ○ Ordering Information

Model	Stock No.	Description
SMI-iC400	569309	Interdiction iCentral Subscriber Management System (H/W+S/W) Controls Up To 56 Remote Headends (100,000 Passings Maximum)
SMI-iC200	569303	Interdiction iCentral Subscriber Management System (H/W+S/W) Controls Up To 28 Remote Headends (50,000 Passings Maximum)
SMI-iC108	569302	Interdiction iCentral Subscriber Management System (H/W+S/W) Controls Up To 8 Remote Headends (16,000 Passings Maximum)
SMI-iC104	569301	Interdiction iCentral Subscriber Management System (H/W+S/W) Controls Up To 4 Remote Headends (8,000 Passings Maximum)
SMI-ICU-01	569331 01	Interdiction. iCentral Subscriber Management System Upgrade (H/W+S/W), SMI-IC104, (4 Headend) SMI-IC108 (8 Headend)
SMI-ICU-03	569331 03	Interdiction. iCentral Subscriber Management System Upgrade (H/W+S/W), SMI-IC108 (8 Headend) SMI-IC200 (28 Headend)
AMT-AC100	9501	AMT-Central Subscriber Management System (H/W+S/W), Controls Up To 4 Remote Headends (100,000 Passings Maximum)
AMT-AC200	9503	AMT-Central Subscriber Management System (H/W+S/W), Controls Up To 28 Remote Headends (300,000 Passings Maximum)

# Intelligent Transmitter

## ITX



### ○ Features & Benefits

- Controls VMI, TVCB Interdiction Units, and AMT Addressable Taps
- FSK Modulated Data Carrier Output Available in 4 Different Frequencies

The Intelligent Transmitter (ITX) provides the data link between the iCentral and the VMI and TVCB Addressable Interdiction Field Units. It also is used with the AMT-Central to control Addressable Multi-Taps (please refer to AMT section in the catalog).

The ITX accepts control data from the iCentral and transmits the control and maintenance data to the Interdiction Field Units via an FSK modulated data carrier. The ITX maintains the Interdiction Field Unit configuration and complete subscriber database for that headend without the need for direct/continuous communication with the iCentral. The iCentral to ITX data link may be configured for dial-up or direct line connection.

### ○ Specifications

#### General

Single Board Computer Interfaces:  
 Two Serial Communication Ports  
 iCentral to ITX @19.2 k Baud  
 ITX to Field Units @9.6 k Baud  
 Custom Communications Protocol

Power Requirements  
 Voltage: 117 ±10%VAC

Frequency: 60 Hz  
 (Uninterrupted Power Supply Recommended)

Temperature Range: 0° to 50° C

#### Electrical

ITX Carrier Level  
 (Relative to Video): -10 dB  
 Carrier Guard Band: ±300 KHz  
 FM Deviation: ±60 KHz  
 Carrier Frequencies:  
 53.0 MHz  
 104.75 MHz  
 105.40 MHz  
 108.90 MHz  
 112.70 MHz

#### Mechanical

Dimensions (W x H x D):  
 19.0 x 1.75 x 14.5 in  
 483 x 44 x 369 mm  
 Weight: 6.0 lbs., 2.73 kg

#### Connectors (Rear Panel)

RF Output: " F "Type Female  
 Serial Port 1:RJ-9, Male  
 Serial Port 2:RJ-9, Male

#### Controls (Front Panel)

RF Level: Control

#### Indicators (Front Panel)

Data: LED, Red  
 Power: LED, Green

### ○ Ordering Information

#### Intelligent Transmitter (ITX)

Model	Stock No.	Description
VMI-ITX-053	9303D	Addressable Product Intelligent Transmitter (ITX), Controller/FSK Modulator 53.0 MHz Data Carrier Frequency
VMI-ITX-104	9304C	VMI Intelligent Transmitter (ITX), Controller/FSK Modulator 104.75 MHz Data Carrier Frequency
VMI-ITX-105	9305C	VMI Intelligent Transmitter (ITX), Controller/FSK Modulator 105.40 MHz Data Carrier Frequency
VMI-ITX-108	9307C	VMI Intelligent Transmitter (ITX), Controller/FSK Modulator 108.90 MHz Data Carrier Frequency
VMI-ITX-112	9306C	VMI Intelligent Transmitter (ITX), Controller/FSK Modulator 112.70 MHz Data Carrier Frequency

# Addressable Transmitter

ATX



The Addressable Transmitter (ATX), located at the headend, accepts converter control data from the iCentral Control Computer and transmits the data over the cable system. The unit controls SMI addressable interdiction units. The unit also controls S-A 8580 and Series 8500 Home Terminals. Output data is transmitted as an FSK-modulated digital signal at the data rate of 19,200 bits per second. It operates at a standard frequency of 108.2 MHz. One ATX is required in each headend. Two ATX 's can be installed in tandem for system redundancy at each site.

## ○ Features & Benefits

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- Controls SMI Interdiction Units and S-A 8500 and 8580 Home Terminals
- FSK Modulated Data Carrier Output 108.2 MHz

## ○ Specifications

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### Input

Data Rates: 110,150,300,600,1200,2400,4800,9600 bps

### Host Computer Interface

Data Type: Asynchronous

Transmit Mode: Half duplex

Protocol: Custom

### Output

Carrier Frequency:

108.2MHz (Other frequencies available by special order)

Frequency accuracy:  $\pm 0.0010\%$

Channel spacing: 400 kHz

Signal level: +25 to +45 dBmV (adjustable)

Modulation: FSK

Peak deviation: 30 kHz (nominal)

Data Format: Bi-phase coded

Data rate: 19,200 bps

### Power Requirements

Input voltage: 115 V AC (nominal)

Power consumption: 50 Watts (max)

### Environmental

Temperature: 0 to +50 degrees C, +32 to +122degrees F

## ○ Ordering Information

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Model	Stock No.	Description
SMI-ATX-8653	464205	SMI Addressable Transmitter 108.2 MHz Data Carrier