# **SMI**

## Subscriber Module Interdiction



### O Features & Benefits

- Like All Interdiction Products- Addressable Tap Plus Individual Channel Control
- Subscriber Modules Jamming Dedicated to Each Subscriber (120 - 550 MHz)- Flexible Population of Subscriber Ports.
- Independent Forward and Return Path Control to Manage Ingress
- Bandwidth: 5-40 MHz Return, 51-750 MHz Forward Path
- 37-90 VAC powering, Optional power passing capability to subscriber port for customer premise equipment

The SMIU design is based upon a subscriber module that contains the oscillators that are dedicated to a specific subscriber. It is ideal for lower density, suburban applications.

The SMIU subscriber module contains 5 oscillators that can secure channels over bandwidths within 120 to 550 MHz and jam up to 80 channels simultaneously to protect extended basic or premium channels. It also has the capability to individually control forward and return paths for subscriber connect/disconnect as well as ingress control.

The units are available in 4 or 8 port configurations either in strand or pedestal mount. They have a forward path bandwidth of 51-750 MHZ and 5-40 MHZ return path. Each unit consists of a die cast housing equipped with a power supply, seizure board and motherboard/combiner. The seizure board accepts plug-in circuitry based on system design criteria: Directional Coupler (SMI-DCx) and Equalizer (SMI-CEQx). The subscriber modules plug into the motherboard.

Order From:

Toll Free: 800-423-2594 www.multicominc.com multicom@multicominc.com

## Subscriber Module Interdiction

## Specifications

### General

Frequency Range

Forward Path: 51 to 750 MHz Reverse Path: 5 to 40 MHz Insertion Loss: See Tables Below

Transient Protection: Argon Gas Discharge Tubes

Regulatory:

Complies with FCC Rules & Regulations, Part 76

#### **Electrical**

Minimum Feeder Input Levels

	51 MHz	550 MHz	750 MHz
4-Port	17.0 dBmV	23.0 dBmV	25.0 dBmV
8-Port	20.5 dBmV	26.5 dBmV	28.5 dBmV

Motherboard Input Levels

Optimal

	51 MHz	550 MHz	750 MHz
4-Port	15.5 dBmV	21.5 dBmV	23.5 dBmV
8-Port	19.0 dBmV	25.0 dBmV	27.0 dBmV
Minimal			
4-Port	11.0 dBmV	17.0 dBmV	19.0 dBmV
8-Port	14.5 dBmV	20.5 dBmV	22.5 dBmV

Forward Path Tap Loss

4-Port (Full AGC):

5.5 dB + DC Port Loss + EQ Loss

8-Port (Full AGC):

9.0 dB + DC Port Loss + EQ Loss

4-Port (No AGC)4:

1.0 dB + DC Port Loss + EQ Loss

8-Port (No AGC)4:

4.5 dB + DC Port Loss + EQ Loss

Reverse Path Tap Loss

4-Port: 10.5 dB + DC Port Loss 8-Port: 14.0 dB + DC Port Loss

Subscriber Port Output Level

@ 750 MHz: 18.0 dBmV ±0.5 dB @ 550 MHz: 16.0 dBmV ±0.5 dB @ 51 MHz: 10.0 dBmV ±0.5 dB

Feeder Input and Output Return Loss

5 to 7 MHz: > 9 dB 7 to 40 MHz: > 13 dB 51 to 550 MHz: > 16 dB 550 to 750 MHz: > 14 dB **Spurious Output:** 

-60 with Respect dB to Nominal Video Level

Port-to-Port Isolation

51 to 550 MHz: > 60 dB 550 to 750 MHz: > 40 dB

Carrier-To-Noise: 55 dB Hum Modulation

> 5 to 450 MHz: -65 dBc 450 to 750 MHz: -61 dBc

Subscriber Disconnect: Static or Dynamic

	550 MHz	750 MHz
	(77 Channels)	(110 Channels)
СТВ	< -75 dBc	< -68 dBc
XMOD	< -66 dBc	< -59 dBc
CSO	< -58 dBc	< -55 dBc

### **Jamming**

Voltage Controlled Oscillator

Frequency Range

VCO 1: 120.0 - 169.5 MHz (ch. 14-22) VCO 2: 210.0 - 283.5 MHz (ch. 13, 23-34) VCO 3: 288.0 - 365.5 MHz (ch. 35-47) VCO 4: 366.0 - 457.5 MHz (ch. 48-63) VCO 5: 458.0 - 547.5 MHz (ch. 64-78)

Slots

Per VCO: 16 Per Module: 80

## **Power**

Cable Power Input Voltage: 37 to 90 VAC

Maximum Feeder Current: 15 A

Power Passing to Port (Optional): 250 mA

Power Passing to Unused Feeder Port:

4-port: 1 A 8-port: 2 A

Power Consumption:

See 4-port & 8-port

**Power Consumption Tables** 

## Mechanical

Housing: Die-cast Aluminum (alloy 360)

**Dimensions** 

4-port: 15.0 L x 7.5 W x 7.75 H in. 8-port: 15.5 L x 12.25 W x 7.75 H in.

4-Port Weight

Housing Only: 8.5 lbs Subscriber Module: 1.0 lb. Fully Loaded: 12.5 lbs

8-Port Weight

Housing Only: 14.0 lbs Subscriber Module: 1.0 lb. Fully Loaded: 22.0 lbs

Strand Clamp:

Accepts 1/4 in. to 5/16 in. Diameter Cable

#### **Addressable Receiver**

Carrier Frequency: 108.2 MHz Standard

#### **Environmental**

Ambient Temperature Range: -40 to 60 °C

Humidity: 5 to 100 %

