

## BsmarTV AL5T3 Compact Transmitter

### Features & Benefits:

- 2-5 L-Band (SAT-IF) Polarities
- 1 Cable TV/DTT/DAB (54-860MHz, 10-20 channels)
- Stand Alone Configuration
- High Output Power
- Low Power Consumption
- Small Footprint / Low Profile
- Plug and Play Deployment



### Product Description

Foxcom's AL5T3 compact optical transmitter is a new addition to the BsmarTV suite of products. The BsmarTV platform is a cost effective system to distribute between two and 5 L-Band (SAT-IF) polarities, and one Cable TV and digital terrestrial signals. The BsmarTV compact series of transmitters is designed for deployments in both small and medium buildings. The BsmarTV compact series of transmitters are a cost competitive solution to traditional coaxial cable deployments. The BsmarTV compact series of transmitters are a stand alone based configuration making it an ideal solution for both small and medium sized buildings.

The AL5T3 compact series of transmitters are low profile and wall mountable providing a cost effective method of delivering transport for small and medium distribution systems where a traditional headend cannot be installed. The AL5T3 compact series of transmitters can be deployed in applications such as small and medium MDU's, and other types of applications.

### Specifications

	AL5T3-1-1513-1		AL5T3-1-1610-5 (5 L-band only)
	L-Band (SAT-IF)	Cable TV	L-Band (SAT-IF)
RF Input			
Operating Frequency Range (MHz)	950-2400	54-860(10-20 channels)	200-2500
Minimum RF Input Power	-55dBm	15dBmV	-40dBm
Maximum RF Input Power	-35dBm	25dBmV	-20dBm
Flatness	±0.5dB	N/A	±0.5dB
CNR (Min. dBc)	35dB1	482	35dB1
IMD (Max dBc)	40	N/A	40
RF Input Connector	F-type Female		
CSO @ Pin = 0dBm	N/A	56dBc	N/A
CTB @ Pin = 0Dbm	N/A	60dBc	N/A
Output Return Loss	-10dB		

RF Input Impedance	75 Ohms		
RF Input Return Loss (Min.)	-10dB		
Gain Control	AGC	AGC	AGC
LNB Powering VDC (User Defined)	N/A		
Signaling (KHz): Set on/off	N/A		
Optical Output			
Optical Wavelengths	1310	1530	CWDM 1610-1510
Optical Output POver	+10dBm		+4dBm
Optical Output Connector Type	SC/APC		
General			
Power Connector	Round 2 pin 1.9mm DC power (male)		
Supply Voltage (VDC)	12V 2A		
Maximum Current Drain (mA)	1.2A		
Operating Temperature (°C)	-10 - +55		
Storage Temperature (°C)	-45 - +85		
Dimensions (W x H x D) mm	208 x 58.6 x 131		

Notes:

1. @ 36MHz
2. With Matched RX @ -5dBm optical

### Ordering Information

Part Number	Description
AL5T3-1513-1A	BsmarTV compact stand alone transmitter with dual polarity L - Band (SAT-IF) 950-2700MHz and Cable TV 54-860MHz
AL5T3-1513-1E	BsmarTV compact stand alone transmitter with dual polarity L - Band (SAT-IF) 950-2700MHz and Cable TV 85-860MHz
AL5T3-1-1610-5	BsmarTV compact stand alone transmitter with 5x L-band (SAT-IF) 200-2500MHz (ext CDWM required) - Compatible only with receiver AL5R3-55
AL5T3 5 CWL 8 K	BsmarTV Compact Headend Kit - 1x AL5T3-1-CWDM-5 5x 200 - 2450MHz L-Band (SAT-IF) single output TX with internal CWDM, 1x SC/APC jumpers, <b>1x LGX-4 housing, 1x 1:8 way optical splitter (LGX form factor).</b>
AL5T3 5 CWL 16 K	BsmarTV Compact Headend Kit - 1x AL5T3-1-CWDM-5 5x 200 - 2450MHz L-Band (SAT-IF) single output TX with internal CWDM, 1x SC/APC jumpers, <b>1x LGX-4 housing, 1x 1:16 way optical splitter (LGX form factor).</b>
AL5T3 5 CWL 32 K	BsmarTV Compact Headend Kit - 1x AL5T3-1-CWDM-5 5x 200 - 2450MHz L-Band (SAT-IF) single output TX with internal CWDM, 1x SC/APC jumpers, <b>1x LGX-4 housing, 1x 1:32 way optical splitter (LGX form factor).</b>

## Installation Guide

### Foxcom Compact Installation Guide

#### 5 L-band satellite signals

##### 1. Installing Compact TX head end

1. Mount the AL5T3 TX and LGX-4 in an appropriate location using the mounting holes on the units and the appropriate fasteners for the installation.
2. Mount the CWDM and splitter modules into the LGX-4 using “clips”
3. Connect TX to AC mains using power supply provided.

##### 2. RF input procedure

1. Install satellite dish(s) according to providers specifications
2. Connect satellite LNBS to power inserter/polarity locker as required, such as the PI-6S or HRPID-1422 [the AL5T3 TX **does not** supply LNB powering]
3. Block voltage from output of power inserter(s) using Voltage Blocking Couplers  
**DO NOT INSERT POWER INTO TX**
4. Verify proper signal strength and quality using an appropriate satellite signal strength meter.

- Signal strength should be between  $-20$  and  $-40$ dBm per transponder.
- Record signal strength and quality for future reference.

5. Using co-ax jumpers [18” minimum, compression fitted F-connectors] connect power inserter to the input of the AL5T3 TX.

##### 3. Optical installation

1. Using an appropriate optical power meter set on 1550nm, measure and record optical output of each port on the AL5T3 in dBm. TX output should be  $+4$ dBm  $\pm .5$
2. Using supplied SC/APC to SC/APC single mode jumpers, connect all 5 TX “outs” to the CWDM as follows: (clean all connectors prior to every installation)

- TX port 1 to CWDM 1610nm
- TX port 2 to CWDM 1590nm
- TX port 3 to CWDM 1570nm
- TX port 4 to CWDM 1530nm
- TX port 5 to CWDM 1510nm

3. Connect CWDM “common” to the input of the appropriate splitter.

4. Using optical power meter set to 1550nm, measure and record the output power from each port of the optical splitter and verify that they are within the system design parameters as follows: (you will now be reading total cumulative power)

- Power from 8-way splitter;  $0.25$ dBm  $\pm .5$
- Power from 16-way splitter;  $-3.5$ dBm  $\pm .5$

- Power from 32-way splitter; -6.5dBm  $\pm$  .5

5. Compact head end is now ready to be connected to distribution. All fibers used should be SC/APC SMF-28 or equivalent.

**\*\*NOTE: 1x32 splitter requires duplex SC/APC connectors on front side\*\***

#### 4. Receiver Installation

- Mount the AL5R3 in an appropriate location using the mounting holes on the unit and the appropriate fasteners for the installation.
- Connect RX to AC mains using power supply provided
- Verify optical power level on fiber at each location. Power levels should be level from 3d above, minus distribution losses; fiber, splices, connectors, etc.
- After cleaning fiber connector, insert into RX. RF and OP lights should be green.
- Using satellite meter, confirm F-connector outputs and compare to readings taken in 2d above.
- RX is now ready to be connected to coax distribution. Output signals correspond directly to the inputs of the TX.

For more details click on a quick link:

- [BsmarTV 4 + 1](#)
- [BsmarTV 5 + 1](#)
- [BsmarTV 5 + 0](#)