

## Multipolarity Optical Receivers

### Features & Benefits:

- Five L-band links
- One- or two-way CATV service
- Ethernet data services



### Product Description

The **BsmarTG AL5R Multipolarity Optical Receivers** complement the AL5T Optical Transmitters Series, completing the multipolarity optical broadband RF and Data video link by converting optical signals transparently to their original format - satellite QPSK/8PSK.

Available in a compact, wall mount enclosure, the receiver fits easily into any MDU distribution enclosures. Any standard home-run network can be supported from this fiber optic node onwards.

The **AL5R** series is powered by any of the BsmarTV 500 power adapter accessories or via remote DC powering over the DBS coax output.

### Specifications

	AL5R-1xxx	AL5R-2xxx	AL5R-3xxx	AL5R-4xxx	AL5R-x[1-4]xx	Return Path Tx1
<b>RF</b>	<b>L-band base units</b>				<b>CATV options</b>	
Operating frequency range [MHz]	200-2500	200-2500 5-2500	200-2500	200-2500 5-2500	54-860 85-860	5-42 5-65
Number of outputs	5	4 + 1	4	3 + 1	1	1
RF output power [per transponder] <sup>10</sup>	-302,7	-302,7	-302,7	-302,7	16 dBmV <sup>3</sup>	n/a
Flatness full band	±2	±2	±2	±2	±1.5	±0.25
Flatness [dB per 36 MHz]	±0.5	±0.5	±0.5	±0.5	n/a	n/a
IMD [max dBc] 4	40	40	40	40	n/a	n/a
CNR [min. dBc] 5	40	40	40	40	47 6	n/a
CSO [max. dBc]	n/a	n/a	n/a	n/a	60	n/a
CTB [max. dBc]	n/a	n/a	n/a	n/a	60	n/a
RF connector	F-female					
RF output return loss [min. dB]	10	10	10	10	12	
Laser wavelength [nm] <sup>1</sup>	n/a				n/a	1310, 1550
RP laser output [dBm] <sup>1</sup>	n/a				n/a	0, +3
Return path input signal [dBmV] <sup>1</sup>	n/a				n/a	+20

Return path RF input dynamic range FP / DFB [dB]	n/a			7 /12
<b>Optical Input</b>				
Max. optical input power [dBm]	-8	+1	n/a	
Min. optical input power [dBm]	-20 /-15 7	-4	n/a	
Output optical connector type	SC/APC			
Min. optical input return loss [dB]	50			
Optical wavelength [nm]	1290 to 1610			
<b>General</b>				
Power connector	2.1 mm coax plug, center positive			
Supply voltage [VDC]	12			
Max. current drain [mA]	750	950	950 8	1.05A 9
Operating temperature [°C]	-20 to +50			
Dimensions [W x H x D] mm	208 x 58.6 x 131			
<b>Data Management and Control (Optional)</b>				
<b>Managed Layer 2 Ethernet</b>				
SNMP Management	SNMP V2c through standalone EMS, private MIB or BsmarTView			
QoS Support (802.1p)	4priority queues			
Multicast Support	up to 5 IGMP multicast MAC addresses			
Layer 2 Managed Switch	2 ports 10/100/1000Mbps			
DHCP Client				
<b>Monitoring &amp; Alarms</b>				
Temperature	low/normal/over temp			
RF Output	signal loss / low signal / normal / high signal			
<b>Control</b>				
RF Output ports (L-Band and CATV)	On / Off			
<b>Connectors</b>				
Input	SFP			
Output	RJ45			

n/a not applicable

**Notes:**

1. Only applicable to Receiver with CATV Return Path option
2. RF Output @ -8 to -20 dBm optical
3. RF Output @ -4 dBm optical @ 60 channels
4. Measure @ Popt in @ -12dBm
5. Measured @ typical input, 15 dB optical loss
6. Measured @ -4 dBm optical input @ 60 NTSC channels @ 3.5% OMI
7. For the DIRECTV MFH-2 platform
8. 200 mA above the L-Band current consumption
9. Total current drawn includes L-band and downstream CATV
10. Output power per transponder @32 transponders [total power -15dBm]

All specifications are subject to change with out notice.

**Ordering Information**



<b>A</b>	L-band link configuration [MHz]
1	5 Polarities 200 – 2500
2	4 @ 200 - 2500 + 1@ 5 - 2500
3	4 @ 200 - 2500
4	3 @ 200 - 2500 + 1@ 5 - 2500

<b>C</b>	Data
0	None
1	100 BaseT Ethernet transport with system M&C

<b>E</b>	RF laser type
N	None
F	Fabry Perot [0]
D	DFB [3]

<b>G</b>	Country specific power supplies
xx	Contact your local Foxcom sales representative for details

<b>B</b>	CATV configuration [MHz]
0	None
1	One-way 54 - 860 <sup>1</sup>
2	One-way 85 - 860 <sup>2</sup>
3	Two-way 5 - 42 / 54 - 860 <sup>1</sup>
4	Two-way 5-65 / 85 - 860 <sup>2</sup>
	<sup>1</sup> N. America <sup>2</sup> Rest of the World

<b>D</b>	Number of fiber ports
1	CWDM
4	4
5	5
6	6
7	7
8	8

<b>F</b>	Select CATV wavelength [nm]
00	None
13 00	DS 1310 / RP none
13 15	DS 1310 / RP 1510
15 00	DS 1550 / RP none
15 13	DS 1510 / RP 1310

<b>H</b>	Custom product code
XXX	Designated code

**DS** Downstream      **RP** Return Path