

XON80.4SAT-T

ULTRA BROADBAND OPTICAL RECEIVER MODULE + DESTACKER

Application

- ▶ Optical receiver module for 4-band Satellite-TV and DAB/DTT signals in video overlay in FTTH networks

Features

- ▶ O/E conversion of SAT RF Multiplex signals comprising 4 digital SAT-IF signals and DAB/DTT signals
- ▶ Destacking of RF Multiplex signals
- ▶ Automatic gain control (AGC)



Technical Data

Optical Characteristics

Parameter	Unit	Min	Typ	Max
Optical Wavelength	nm	1280	1310/1550	1610
Optical Return Loss	dB	40	45	
Optical Input Power	dBm	-15		0
Total RF input power	dBm	-50		-20
Nominal Satellite Transponder levels	dBm	-72		-42
Nominal DTT Multiplex Levels	dBm	-65		-35
Nominal DAB Multiplex Levels	dBm	-79		-50
RF Frequency Range	MHz		213-5450MHz DAB 213-230MHz DTT 470-854MHz SAT-IF 0.95-5.45GHz	

Satellite Output

Parameter	Unit	Min	Typ	Max
Horizontal high band	MHz		1100-2150	
Vertical high band	MHz		1100-2151	
Horizontal low band	MHz		950-1950	
Vertical low band	MHz		950-1951	
Return loss	dB	10		
Nominal impedance	Ω		75	
Gain @ 2.15GHz with max. gain set	dB			36
Gain @ 2.15GHz with min. gain set	dB	1		
Gain slope 0.95-2.15GHz	dB		2	
Gain ripple across band	dB			6
Gain ripple across 30MHz	dBm			1

Parameter	Unit	Min	Typ	Max
Gain Adjustment Range	dB		35	
Nominal Output Levels:				
Satellite @ 2.15 GHz	dBm	-38		-34
Satellite @ 1 GHz	dBm	-39		-35
213-854MHz rejection	dBm	30		
Noise Figure @ Max Gain	dB			7
OIP3	dBm	2.5		
Isolation	dB	30		
In Band Spurious power	dBc	25		
Integrated Phase Noise	°RMS			4
Output frequency accuracy/stability	kHz			320

Terrestrial Output

Parameter	Unit	Min	Typ	Max
RF Frequency Range				
DTT	MHz	470		854
DAB	MHz	213		230
Nominal impedance	Ω		75	
Return Loss	dB	10		
Gain @ 854MHz with max. gain set				21
Gain @ 854MHz with min. gain set	dB	-13		
Gain slope 470-854MHz	dB		1	
Gain ripple across band	dB			6
Gain ripple across 8MHz	dBc	25		0.5
Gain Adjustment Range	dB		35	
Nominal Output Levels:				
DTT @ 854MHz		-46		-42
DTT @ 470MHz		-47		-43
DAB		-63		-59
950-2150MHz rejection	dB	25		
Noise Figure @ Max Gain	dB			5
OIP3				
470-860MHz	dBm	0		
213-230MHz	dBm	-10		
In Band Spurious power	dBc	30		

General Technical Data

Parameter	Unit	Min	Typ	Max
Operating Temperature Range	°C	0		+50
Storage Temperature Range	°C	-10		+50
Power consumption	mA			600
Power supply voltage (Plug to optionally supply converter externally)	V		6	
Optical Connector			SC/APC	
RF output connectors			5x F-female	
Enclosure dimensions			165x 155 x 30	