

The BC21R40 series optical node is a compact in-door optical node especially designs for FTTH application. It designs with a single MMIC chip, it has the characteristics of high integration, high performance. It provides a high quality and high-performance FTTH network solution for cable TV operators.



Main Features

- Single MMIC chip solution
- RF bandwidth : 45 ~ 1006 MHz
- Output level: > 80dBuV (@AGC(-9 ~ 0 dBm) power input)
- Wide optical power input range: -18 ~ +2 dBm
- Digital AGC control and range: -9 ~ 0 dBm
- MER: >39.2dB @>-9dBm, RFsource $\geq$ 80dBuV
- CNR: >57dB @>-11dBm, RFsource $\geq$ 90dBuV

Specification

	Item	Parameter
Optical (Forward Path)	Operating Wavelength	1550 nm
	PON Pass Wavelength	1310, 1490nm
	Optical return loss	> 45 dB
	Isolation (Pass band)	$\geq 35\text{dB}$ ($\lambda = 1550\text{nm}$)
	Isolation (Reflect band)	$\geq 20\text{dB}$ ($\lambda = 1310\text{nm}$, $\lambda = 1490\text{nm}$)
	Insert loss (Pass band)	$\leq 0.8\text{dB}$ ($\lambda = 1550\text{nm}$)
	Insert loss (Reflect band)	$\leq 0.6\text{dB}$ ($\lambda = 1310\text{nm}$, $\lambda = 1490\text{nm}$)
	Optical Return Loss	$\geq 45\text{dB}$
	Optical Power Input Range	-18 ~ +2dBm (Recommended Range: -9 ~ 0)
	AGC Range	-9 ~ 0dBm
RF (Forward Path)	Bandwidth	45 ~ 1006MHz
	Flatness	$\pm 0.75\text{dB}$
	RF impedance	75Ohm
	Output level	>80dBuV@AGC(-9 ~ 0), RFsource = 80 dBuV
		>76dBuV@ -11dBm, RFsource = 80 dBuV
		>70dBuV@ -15dBm, RFsource = 80 dBuV
	Output return Loss	16dB(Typical)

	Item	Parameter
Analog TV	OMI	3.8%
	CNR	=59dB@-9dBm,RFsource >90dBuV
		>57dB@-11dBm,RFsource >90dBuV
		>51.7dB@-17dBm,RFsource >90dBuV
	CTB	≤ -65dB
	CSO	≤ -65dB
Digital TV	OMI	4.3%
	MER	>39.2dB@-9dBm,RFsource = 80dBuV
		>36.2dB@-11dBm,RFsource = 80dBuV
		>31dB@-17dBm,RFsource = 80dBuV
	BER	<1.0E-9@-17dBm,RFsource = 80dBuV
Environmental	Operating Temperature	-25 ~ 85℃
	Storage Temperature	-40 ~ 85℃
	Storage Humidity	≤95%
	Power consume	<1W
User Interface	Optical Connector Type	SC/APC or SC/UPC
	Power interface	DC 5V/1A
	RF Output Connector	1 or 2
	Optical Power Indicator (Three color lights)	Red: > 0 dBm
		Green: 0 ~ -11 dBm
		Orange: < -11 dBm
	Size	100 × 67 × 23mm
	Weight	190g