

# WCS-32/D

- 32 inputs per unit rack space
- Electronically controlled
- Built-in amplifiers allowing unity gain
- Optional SNMP connectivity
- Excellent distortion characteristics
- Cost effective compared to similar products



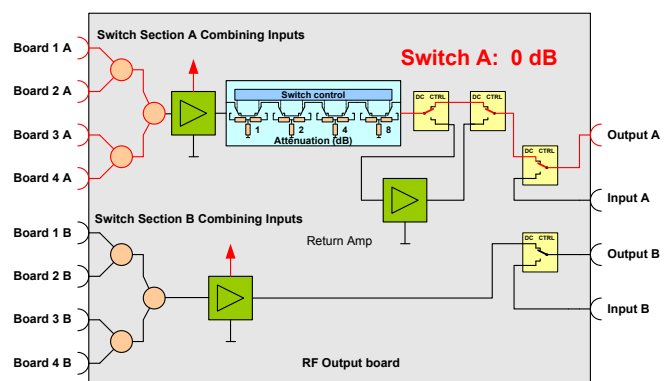
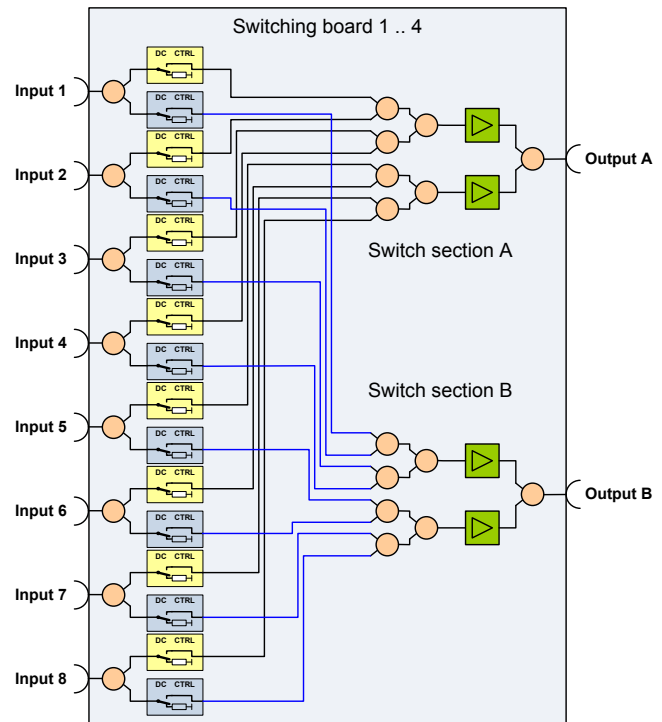
## Overview

The WCS-32/D is a 32 channel electronically controlled switch designed for use in CATV headends and is optimised for return path use. The switch has 32 inputs and 2 outputs. Every input or number of inputs can be connected to one or both outputs. The switch is controlled via LoCon, RS-232 or via Ethernet using the optional SNMP module. Control can also be achieved locally through the USB connection.

The WCS-32/D has been developed for use in return path monitoring systems like the Technetix IMD solution. In this application, the unit routes one of up to 32 nodes to a spectrum analyser for monitoring. When more nodes need to be monitored, a second or third switch can be connected to the cascade input and, via the software, up to 96 nodes can be connected via cascading. The WCS-32/D can also be used with other return path monitoring systems to extend their input capacity.

The switch sections of the WCS-32/D contain an individual switch per input, after which the inputs are combined using splitters. This allows groups of nodes to be monitored with single measurements and the combining and switching functionality to be used for fault finding.

Software control of the WCS-32/D can be achieved in several ways. The BLL application run locally on a laptop is connected to the WCS-32/D through the USB port. Remote management of the device is achieved using either the standalone web based management application or the Technetix network management software (TNMS).



## Specifications

		MHz	WCS-32/D		
			Min	Max	Typ
<b>Frequency range</b>	Switch section A&B	5 - 300			
<b>Return loss (dB)<sup>1</sup></b>		5 - 10 10 - 65 65 - 300	18.0 20.0 20.0		
<b>Screening efficiency (dB)<sup>2</sup></b>		5 - 30 30 - 300	75.0 75.0		
<b>Attenuator adjustment (dB)</b>	Manual attenuator control Switch section A <sup>3</sup>		0.0 0.0		15.0 15.0
<b>Switch on / off isolation (dB)</b>	Switch section A&B	5 - 65 65 - 300 <sup>1</sup>	60.0 50.0		
<b>Noise figure (dB)</b>	Switch section A Switch section B				17.0 20.0
<b>Cascade inputs (dB)</b>	Switch section A & B	5 - 300		1.0	0.5
<b>Intermodulation (dBc)<sup>4,5</sup></b>					
Switch section A	IM-2 IM-3 CSO CTB	5 - 300	-82.0 -61.0 -85.0 -70.0		
Switch section B	CSO CTB		-85.0 -70.0		
<b>Gain (dB)<sup>6</sup></b>	Switch section A Switch section B	5 - 65 65 - 300 5 - 300	5.0 -1.0 -2.0	20.0 1.0 0.0	0.0 0.0 -1.0
<b>Ripple (dB)</b>					± 1.0
<b>Spurious (dBµV)</b>	At output A & B			25.0	15.0
<b>Input level (dBµV)</b>	Switch section A Switch section B			90.0 90.0	
<b>Temperature range (°C)</b>	Operating temperature		0	50	
<b>Power</b>	Back up power (VDC) Mains power (VAC) Power consumption (W)		18 110	36 260	24 230 40
<b>Switching general</b>	Switching time (ms, max) Protocol Ethernet Bus protocol USB RS-233		98 SNMP V1 10BaseT LoCon 666bps 2,0 9600 bps		
<b>Connectors</b>	Mains power Back up power RF / LoCon USB RS-232 Ethernet		Euro Console Sub d9 female Phoenix 2 Pole Male F female USB - B sub D9 female optional RJ-46		
<b>No. of I/Os</b>	32x inputs / 2x outputs				
<b>Impedance (Ohm, typ)</b>			75		
<b>Dimensions (mm)</b>	L x H x D	19" x 1RU x 400 mm			
<b>Equipment approval</b>	CE				

### Remarks

1	Where frequency is above 40 MHz, deduct 1.5 dB/Octave
2	Tested according to EN 50083-2 2006
3	Step attenuator 0.15dB in 1 dB steps
4	IM-2 with 2 carriers @ 27 MHz & 33 MHz at 110 dBµV output level IM-3 with 2 carriers @ 27 MHz & 29 MHz and 3rd @ & or 61 MHz at 110 dBµV output level
5	CSO with 42 Channel load @ 90 dBµV input level CTB with 42 Channel load @ 90 dBµV input level
6	Switchable 20dB amplifier for return path, software configurable

### Ordering information

Item Name	Article number
WCS-32/D	11602100
WCS-32/D-SNMP	11602120

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