WCS

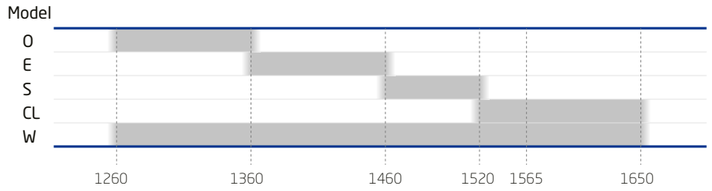
Wide Band Component Test System

Product Description

The Wideband Component Test System (WCS) takes advantage of JGR's cost effective ultra-wide band tunable laser source (TLS5), in order to provide fast and reliable measurements across the entire O, E, S, C, L and U wavelength ranges in one single sweep.

The WCS is capable of characterizing 32-Channel components such as broadband splitters, filters, or CWDM components in less than 10 seconds. With the included WCS Software, users can easily setup PASS/FAIL criteria to view real time graphical results of IL, PDL, and BR versus wavelength of their devices under test.

Wavelength Range (nm)



KEY FEATURES

- 1260 to 1650 wavelength range
- Fast scanning (<10 seconds for the entire band)
- Up to 32 Channels per chassis and 256 per system

APPLICATIONS

- Broadband coupler testing
- CWDM testing
- Filter testing
- FTTH/PON splitter testing
- Attenuator testing

IN THE SYSTEM

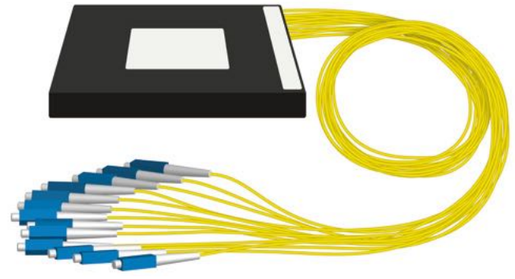
- TLS5 Tunable Laser Source
- WCS chassis
- WCS software

Full band sweep

The WCS connects directly to a JGR TLS5 Tunable Laser Source for full band measurements. The WCS software controls both the WCS chassis and TLS5 tunable laser to allow for IL/BR/PDL measurements of 32Ch in <10 seconds per sweep.

Easy CWDM Testing

The WCS software is designed to automatically measure critical CWDM criteria of every channel such as: center wavelength, min and max IL, IL @ center wavelength, width, BR, PDL, ripple, adjacent and non-adjacent isolation, integrated crosstalk.



Expandable

The WCS chassis can contain anywhere from 4-16 detectors. Multiple PM6 with up to 32 detectors each can be added to the system for a maximum of 256 total detectors.

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1 - Configure TLS5

TLS5 - ☐ -FA

BAND	
CL	1520-1630
W	1260-1650
O	1260-1360
E	1360-1460
S	1460-1530

2 - Configure WCS

WCS- ☐☐

NUMBER OF CHANNELS	
04	4-Channel
08	8-Channel
12	12-Channel
16	16-Channel

3 - Add additional power meter channels

PM6-2- ☐☐

NUMBER OF CHANNELS	
04	4-Channel
08	8-Channel
...	...
28	28-Channel
32	32-Channel

4 - Add accessories

Slide Detector adapters

More detectors available upon request.
See more details on pg 78.

SD ☐☐

TYPE							
00	Cap	14	MU	20	DA113 Barrel	38	MTPO/MPO-16
01	FC	15	E2000	21	BFA3000 Barrel	64	CS
02	ST	16	Universal 2.5.	26	Universal 1.6	67	SN
03	SC	17	MTP/MPO	34	LC Duplex	68	MDC
04	Universal 1.25.	18	LC	35	Optitap		
12	MT	19	MT-RJ	37	MXC		

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Optical/Electrical Specifications

Parameter	Specification				
	O	E	S	CL	W
Wavelength Range (nm)	1260-1360	1360-1460	1460-1530	1520-1650	1260-1650
Wavelength Accuracy (nm)	± 0.1				
Wavelength Resolution (nm)	0.1				
Insertion Loss Dynamic Range (dB)[1]	60				
Insertion Loss Accuracy (dB)[2]	± 0.05				
Insertion Loss Repeatability (dB)	± 0.03				
Backreflection Dynamic Range (dB)	65				
Backreflection Accuracy (dB)[3]	± 0.7				
PDL Accuracy (dB)	± 0.01 +5% of PDL				
PDL Dynamic Range (dB)	0 to 5				
Maximum Number of Channels	256				
Measurement Time (s per sweep)[4]	<5				<10
Remote Interface	USB				
Inpute Voltage	100 - 240 V AC, 50 - 60 Hz (per chassis)				
Power Consumption (VA)	80 maximum (per chassis)				

1. For TLS output power >-5dBm
2. <25dB IL
3. Add +/-0.1dB for every 1dB below -54dB
4. IL and BR each require 1 sweep. PDL requires additional 3 sweeps.

Mechanical/Environmental Specifications

Parameter	Specification		
	WCS	TLS5	PM6
Unit Dimensions W x H x D (cm)	48 x 13.5 x 37.5	36 x 15 x 34	48 x 13.5 x 37.5
Shipping Box Dimensions W x H x D (cm)	53 x 32 x 57	43 x 27 x 47	53 x 32 x 57
Unit Weight (kg)	10[1]	10	10[1]
Total Shipment Weight (kg)	11[1]	11	11[1]
Operating Temperature (°C)	0 to 40		
Storage Temperature (°C)	-40 to 60		
Humidity (Non-condensing)	Maximum 95% RH from 0 to 40°C		

1. Configuration Dependent

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