

# Four Wavelength Testing

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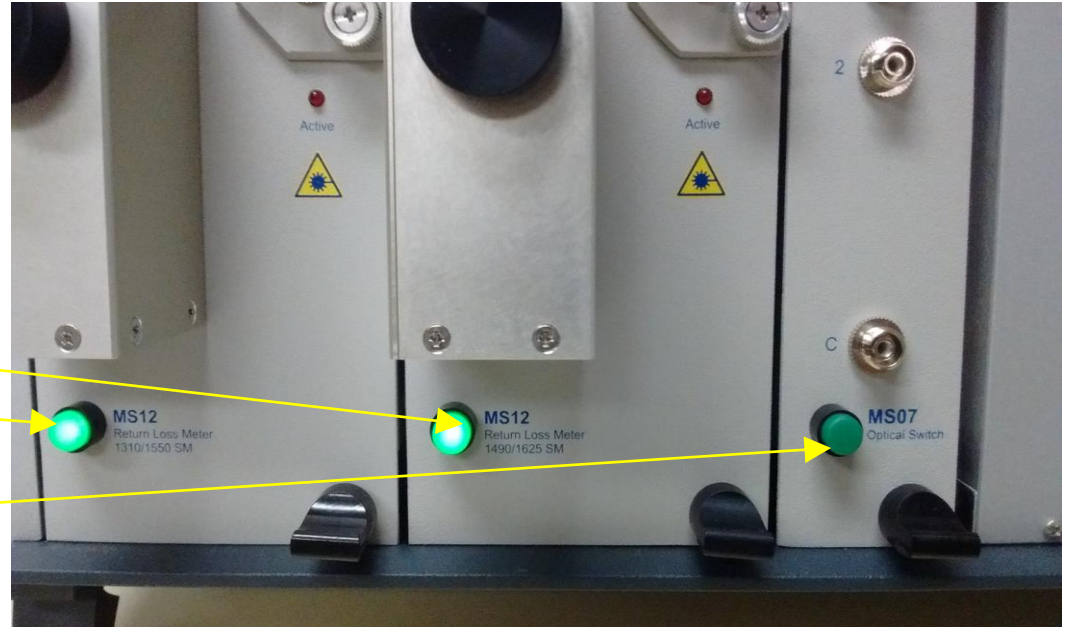
# Four Wavelength Testing

## Required Components

### Two MS12 Return Loss Meters:

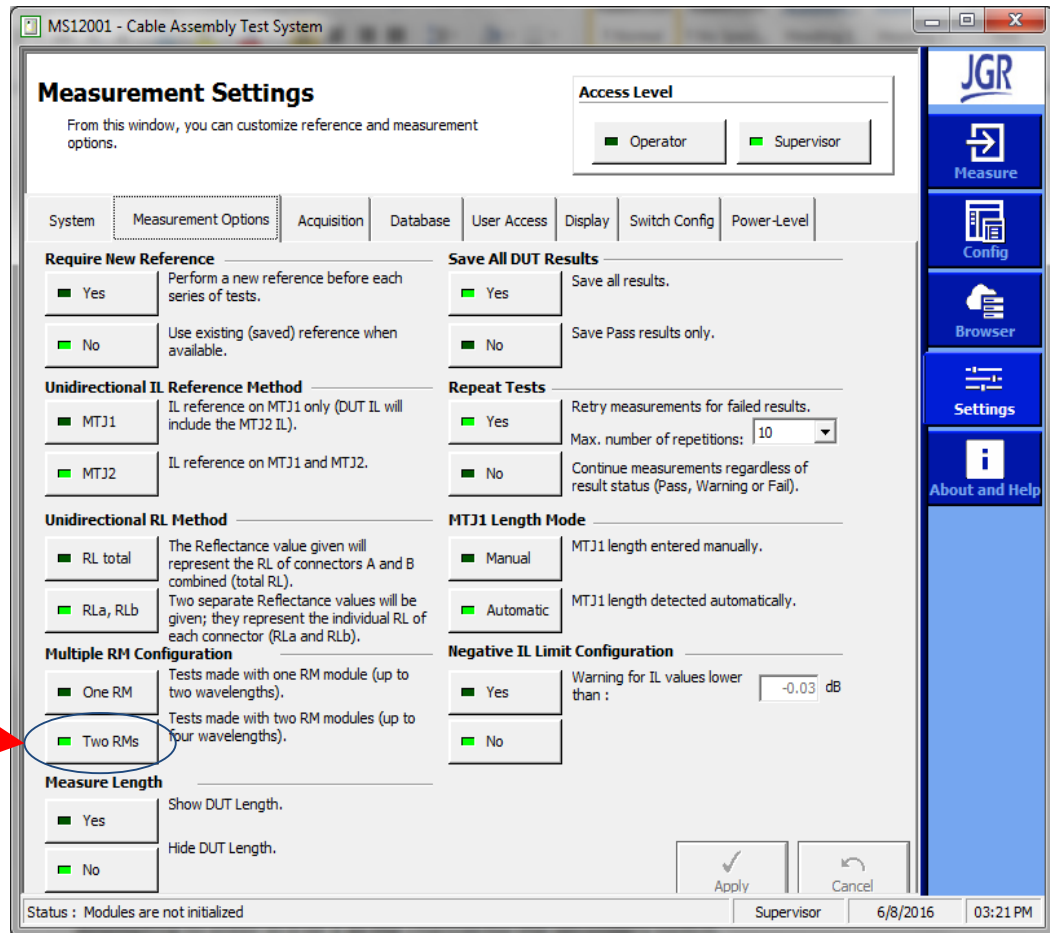
- MS12-0406
- MS12-3050

### 1x2 MS7 Optical Switch



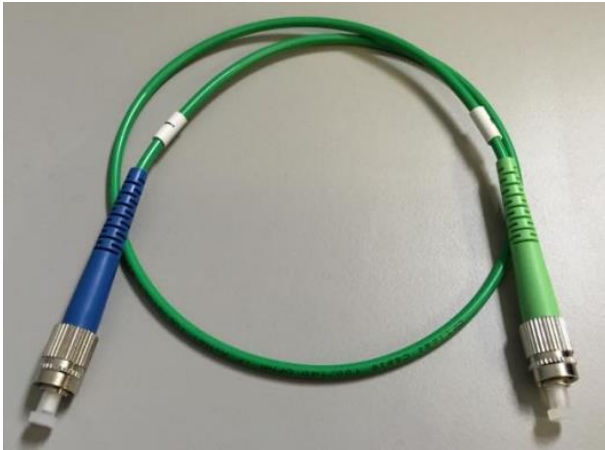
# Four Wavelength Testing

- Enter the settings menu and access the 'Measurement Options' tab.
- Under 'Multiple RM Configuration', select 'Two RMs' to enable testing with up to four wavelengths.



# Four Wavelength Testing

Switch to the 'Power-Level' tab to perform a power adjustment with a 100um patchcord.



MS12001 - Cable Assembly Test System

### Power-level Settings

From this window, you can adjust the power level of your modules.

Access Level:  Operator  Supervisor

System | Measurement Options | Acquisition | Database | User Access | Display | Switch Config | **Power-Level**

#### Power-Level Adjustment

Used for singlemode RM module only. To perform the adjustment, please connect the multimode patchcord (provided with the system) between the selected LM and RM modules. Then press Start Adjustment to proceed.

LM serial number: 0001622358 - (1-0)

RM serial number: 5016053001 - (1-1)

#### Power-Level Information

RM Serial Number	LM Serial Number	Wavelengths(nm)	Last Power-Level Adjustment	Power Level(dB)
4413090611	0001332451	1310	2016-05-27 13:24:06	-9.51
		1550	2016-05-27 13:24:07	-10.07
5016053001	0001622358	1310	2016-06-08 15:12:43	-7.80
		1550	2016-06-08 15:12:44	-8.88
5013100207	0001339251	1490	2016-06-08 15:17:51	-10.18

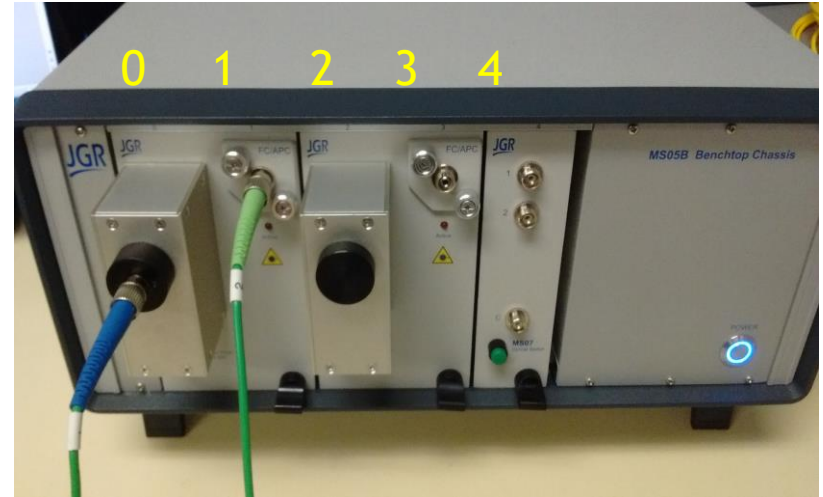
Apply Cancel

Status : Modules are not initialized Supervisor 6/8/2016 03:18 PM

# Four Wavelength Testing

Complete a Power Level for the following four connections:

1. LM module (1-0) to RM module (1-1)

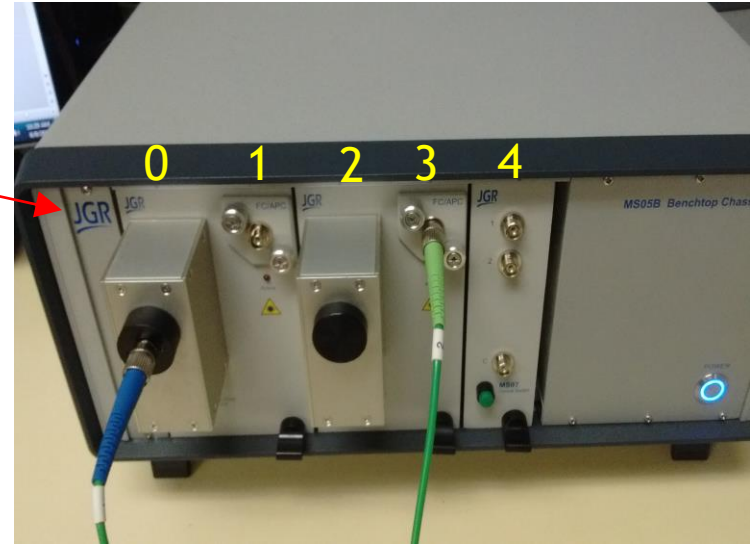


2. LM module (1-2) and RM module (1-1)

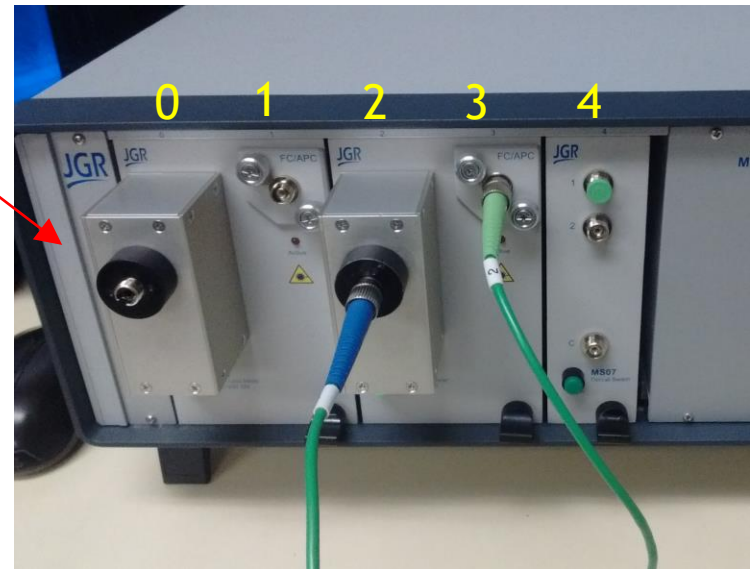


# Four Wavelength Testing

3. LM module (1-0) and RM module (1-3)



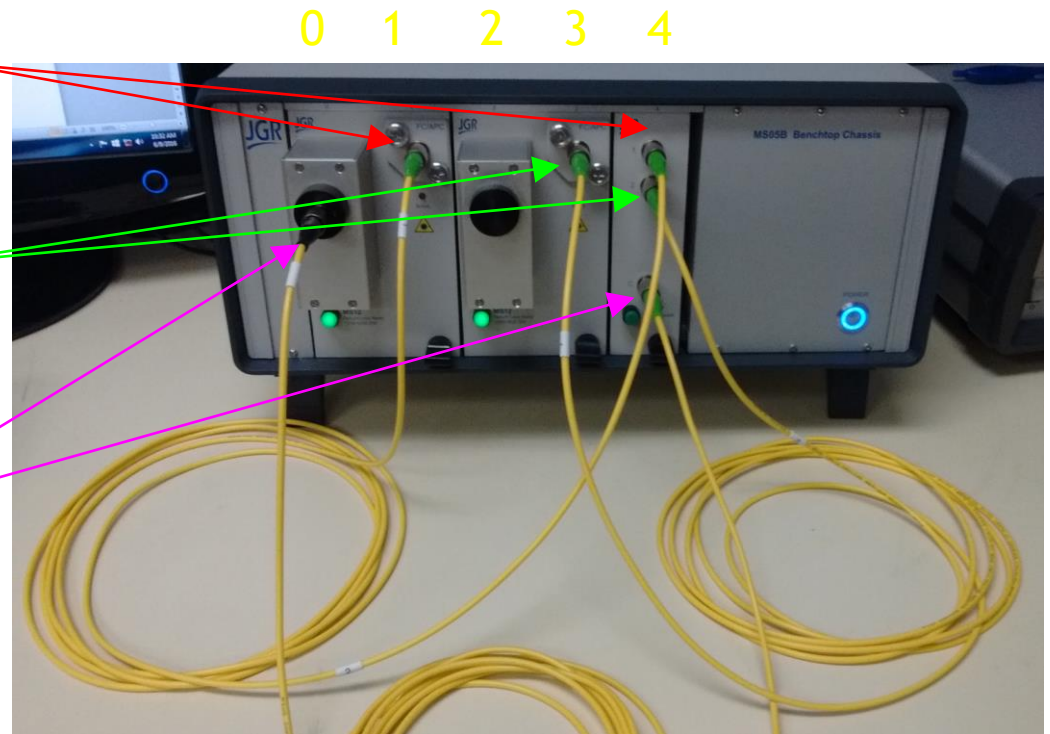
4. LM module (1-2) and RM module (1-3)



# Four Wavelength Testing

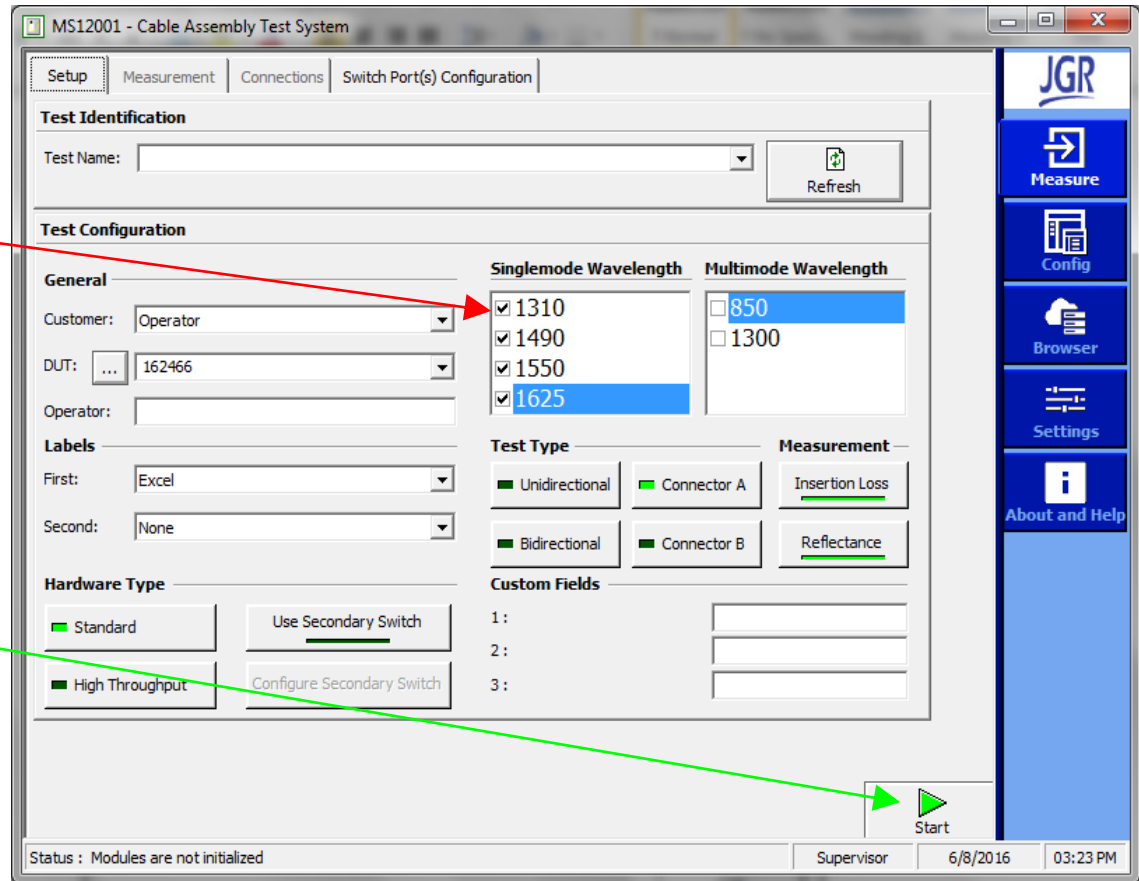
- Connect an FC/APC-FC/APC fiber from RM module (1-1) to channel 1 of the switch
- Connect an FC/APC-FC/APC fiber from RM module (1-3) to channel 2 of the switch
- Connect MTJ1 from the switch common to LM module (1-0)
- DUTs will be connected between the MTJ and LM module (1-0)

*Note: The LM module (1-2) is not used.*



# Four Wavelength Testing

- Go to the 'Measure' menu and 'Setup' tab and select the four singlemode wavelengths.
- Select the appropriate test type and fill out any necessary fields before pressing 'Start' to begin the test.





# Four Wavelength Testing

Take a reference with MTJ1 by following the instructions in the measurement window.

MS12001 - Cable Assembly Test System

Setup Measurement Connections Switch Port(s) Configuration

P#	First Reference					
	1310nm	1490nm	1550nm	1625nm	Len. 1(m)	Len. 2(m)
1	0.21	0.69	0.17	1.03	2.7	2.9

Device Status : Power indication

IL 1310 **-80.00** dB

**MTJ1 Reference End A**

Instructions:  
1- Connect the MS12 OUT slot (1-1) to the OUT port 1 of the switch slot (1-4). Connect the MS12 OUT slot (1-3) to the OUT port 2 of the switch slot (1-4). Connect the switch common port slot (1-4) to the MS12 IN slot (1-0) using a master test jumper (MTJ).  
2- Press Start.

Connectors:  
C1=FC/APC; C2=compatible Breaking MS12001.

Module Connections  
Measurement History

Monitoring  
Fiber: 1  
Wavelength: 1310  
Stop Monitoring Start Monitoring

Serial Number

Hybrid Direction  
First Direction  
Second Direction  
Auto Increment

Print Label/Next DUT  
Print Label Next DUT

Acquisition  
Reference  
Measurement  
Stop Start Single

Status : Current power monitoring Supervisor 6/9/2016 09:33 AM

JGR  
Measure  
Config  
Browser  
Settings  
About and Help