



LCM-550-FAC

**TWELVE-PORT COMBINER
FOR LCM-550X12 SERIES**

INSTRUCTION MANUAL

Phone: (209) 586-1022
(800) 545-1022

Fax: (209) 586-1026

E-Mail: salesupport@olsontech.com
www.olsontech.com

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1) INTRODUCTION

The OLSON TECHNOLOGY LCM-550-FAC is a 12-port combiner with a frequency range of 50-550MHz. Although this combiner is capable of operation to 870MHz, it is not specified beyond 550 MHz.

This field-installable combiner is designed to integrate with the LCM-550X12 Series system and mounts in place of the blank front panel at the top of the unit. RF interconnect cables are provided to enable connection to 12 modulator modules.

Twelve inputs and the common RF output are at the rear of the unit. For convenience, the (nominal) –20dB test point is accessible from the front of the unit.

Two other 12-port combiners are available from OLSON TECHNOLOGY: These units mount in standard 19" equipment racks and are 1 rack-unit high. The OTHC-12 has a frequency range of 5MHz to 550MHz and the OTHC-12-1G has a frequency range of 50MHz to 1000MHz.

2) INSTALLATION

If the LCM-550X12 Series system is mounted in an equipment rack, it must be removed or moved forward enough to provide access to the four screws on each side that secure the top front panel.

Remove the screws that secure the top front panel and remove the panel.

Using the screws removed above, mount the combiner in place of the blank front panel. If necessary, reinstall the system in the equipment rack.

Connect the RF cables to the modulators as required. Use caution not to damage or bend the small center conductors of these cables. The combined signals are available at the RF output connector.

3) OPERATION

Connect a spectrum analyzer or signal level meter to the RF output and adjust the individual modulators as required for the desired combined levels.

NOTE: This combiner has an insertion loss of between 17dB and 23dB. The LCM-550 modulators should not be operated above +45dBmV. Take these values into account when setting the output levels from the combiner. If higher output levels are required, the OLSON TECHNOLOGY LCM-550X12 amplifier is available. This amplifier mounts-to and is powered-by the LCM-550 Series system main chassis. It will operate at +45 dBmV out with 12 channels.

Once the levels have been set, the levels at the test point may be measured and recorded for future reference. Note that the RF output must be terminated in 75Ω when making these test point measurements.

4) SPECIFICATIONS

FREQUENCY.....50MHz to 550MHz

INSERTION LOSS.....20 +3.0dB

TEST POINT LOSS.....20 +3.0dB

PORT-TO-PORT ISOLATION.....35dB Minimum

RETRUN LOSS.....13dB Minimum

CONNECTOR.....Type "F" - (ALL)