



INSTRUCTION MANUAL

ZCM-48-550 Series

Distribution Amplifier

Model	Stock No.
ZCM-48-550	5534

Description

The ZCM-48-550 is a professional-quality, broadband, indoor hybrid distribution amplifier, designed for RF distribution systems such as apartment complexes, hospitals, schools, prisons, and hotels. This amplifier is ideal for those RF distribution systems whose input source is a "cable drop", the output of a MATV/SMATV headend, or the output of a small CATV headend.

The ZCM-48-550 amplifier provides frequency coverage of 54 to 550 MHz and has a flat 50 dB of operational gain, which is variable using a built-in gain control. Variable slope control is also provided, with an available range of 10 dB. The amplifier uses a single push-pull hybrid module and discrete driver stages, capable of delivering high output levels with a low distortion, even in systems with 77 channels of programming. A separate preamp (18 dB gain) and postamp (32 dB gain) are included with an external RF loop used to provide overall output capability. (See Figure 1 for connection instructions.)

The ZCM-48-550 is housed in a compact, aluminum chassis that provides excellent heat dissipation. This allows it to be operated at high ambient temperatures with no degradation of performance or reliability. The ZCM-48-550 is provided with an external UL listed power transformer for use with 117 VAC power.

Features

- Hybrid IC Circuitry for High Output with Low Distortion
- Exceptional Temperature Stability Range of -10° C to +50° C
- External UL Listed Power Transformer
- Line Transient Protection



The lightning flash with arrow-head symbol within an equilateral triangle is intended to alert you to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert you to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE COVER FROM THIS UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV System Installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Installation Caution Notes

1. Connect Only to Transformer Supplied with Amplifier.
2. Do Not Short Power Supply Terminals. Protective Fuse Inside of Sealed Power Supply Case Will Open.

Specifications (Typical)

RF

Frequency Range: 54-550 MHz
 Channel Loading: 77
 Flatness: ±1.00 dB
 Overall Gain: 50 dB
 Noise Figure (a): 5.5 dB
 Output Level: +36/+44 dBmV
 Gain Control Range: 10 dB
 Slope Control Range: 10 dB
 Composite Triple Beat - CTB(b): -66 dB
 Cross Modulation - XMOD (b): -64 dB
 Composite Second Order - CSO (b): -66 dB
 Hum Modulation: -65 dB
 Number Of Hybrids: 1
 Hybrid Technology: Push-Pull
 Impedance - All Ports: 75 Ohm
 Return Loss
 Input: 14 dB
 Output: 16 dB

General

Power Requirements
 Voltage: 117, ±10% VAC
 Frequency: 60 Hz
 Power: 19 W
 Temperature Range: -10 to +50 °C

Mechanical

Dimensions (LxWxD):
 7.50 x 5.63 x 2.00 in
 191 x 143 x 51mm
 Weight:
 3.1 lbs
 1.36 kg

Controls (Top Panel)

Gain: Control
 Slope: Control

Connectors (Top Panel)

RF Input: Type "F", female
 RF Output: Type "F", female

Notes
 (a) Measured at full gain with 0dB slope.
 (b) At rated output capability and channel loading.

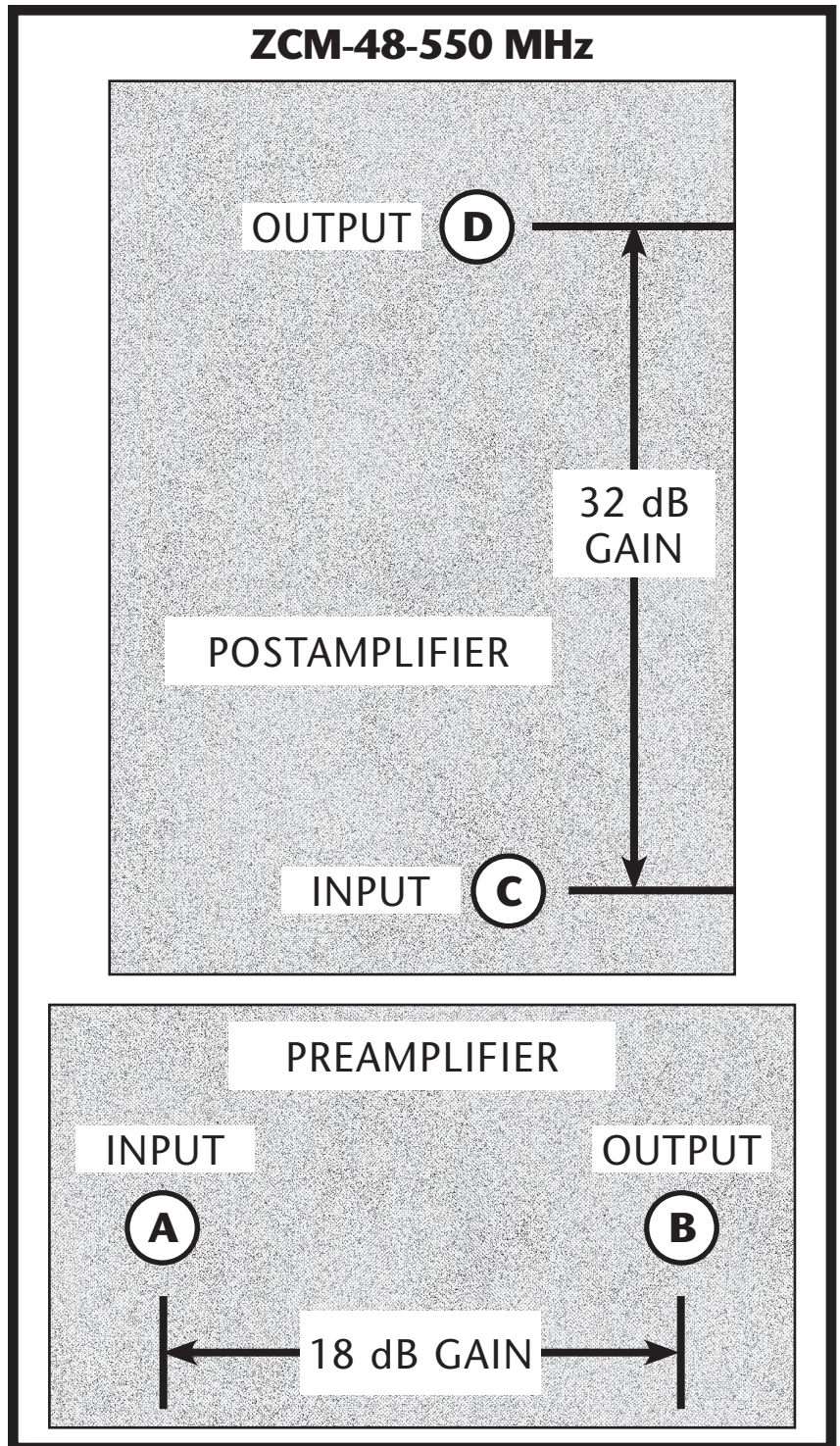
INSTALLATION PRECAUTIONS TABLE

PRECAUTION	REQUIREMENT
Ensure easy access to rack wiring. Facilitate servicing and maintenance. Avoid direct heating or air conditioning. AC power source outlets. Rack Support. Building leakage.	Allow a minimum of 18 in. (50 cm) clearance behind the equipment rack(s). Allow a minimum of 36 in. (100 cm) clearance in front of the equipment rack(s). If unavoidable, use deflector plates. Locate equipment near sufficient outlets to provide power for test equipment and power tools. Make certain rack supports are sufficiently rigid to support rack(s). Beware of dripping water onto equipment from leaky roofs, waveguide roof entries and cold water pipe condensations.

CABLE CONNECTIONS

When 32 dB of gain is required, connect the input to connector "C" and the distribution system cable to connector "D".

When an additional 18 dB of gain is required, connect the 75 ohm coax jumper, supplied, between the connectors "B" and "C", the input to connector "A" and the distribution system cable to connector "D".



Returning Product for Repair (or Credit)

A Return Material Authorization (RMA) Number is required on all products returned to Blonder Tongue, regardless if the product is being returned for repair or credit. Before returning product, please contact the Blonder Tongue Service Department at 1-800-523-6049, Ext. 4256 or visit our website: www.blondertongue.com for further information.

Limited Warranty

Blonder Tongue Laboratories, Inc. (BT) will at its sole option, either repair or replace (with a new or factory reconditioned product, as BT may determine) any product manufactured by BT which proves to be defective in materials or workmanship or fails to meet the specifications which are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing (i) for a period of one (1) year from the date of original purchase (or such shorter period of time as may be set forth in the license agreement specific to the particular software being licensed), with respect to iCentral™ (hardware and software) and all other software products (including embedded software) licensed from BT, (ii) for a period of one (1) year from the date of original purchase, with respect to all MegaPort, IPTV products and fiber optics receivers, transmitters, couplers and integrated receivers/distribution amplifiers (including TRAILBLAZER™, RETRO-LINX™ and TWIN STAR™ products) as well as for VideoCipher® & DigiCipher® satellite receivers, and (iii) for a period of three (3) years from the date of original purchase, with respect to all other BT products. Notwithstanding the foregoing, in some cases, the warranty on certain proprietary sub-assembly modules manufactured by third party vendors and contained in BT products and on certain private-label products manufactured by third parties for resale by BT are of shorter duration or otherwise more limited than the standard BT limited warranty. In such cases, BT's warranty with respect to such third party proprietary sub-assembly modules and private-label products will be limited to the duration and other terms of such third party vendor's warranty. In addition, certain products, that are not manufactured but are resold by BT, carry the original OEM warranty for that product. The limited warranty set forth in this paragraph does not apply to any product sold by BT, which at the time of sale constituted a Closeout Product.

BT will at its sole option, either repair or replace (with a new or factory reconditioned product, as BT may determine) any product sold by BT which at the time of sale constituted a refurbished or closeout items ("Refurbished Product" and "Closeout Product"), which proves to be defective in materials or workmanship or fails to meet the specifications which are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing, for a period of ninety (90) days from the date of original purchase. Notwithstanding the foregoing, in some cases, the warranty on third party software and on certain proprietary sub-assembly modules manufactured by third party vendors and contained in BT products and on certain private-label products manufactured by third parties for resale by BT are of shorter duration or otherwise more limited than the BT limited warranty for Closeout Products. In such cases, BT's warranty for Closeout Products constituting such third party software, third party proprietary sub-assembly modules and private-label products will be limited to the duration and other terms of such third party vendor's warranty. In addition, notwithstanding the foregoing, (i) certain Closeout Products that are not manufactured (but are resold) by BT, carry the original OEM warranty for such products, which may be longer or shorter than the BT limited warranty for Refurbished or Closeout Products. All sales of Refurbished or Closeout Products are final.

To obtain service under this warranty, the defective product, together with a copy of the sales receipt or other satisfactory proof of purchase and a brief description of the defect, must be shipped freight prepaid to: Blonder Tongue Laboratories, Inc., One Jake Brown Road, Old Bridge, New Jersey 08857.

This warranty does not cover damage resulting from (i) use or installation other than in strict accordance with manufacturer's written instructions, (ii) disassembly or repair by someone other than the manufacturer or a manufacturer-authorized repair center, (iii) misuse, misapplication or abuse, (iv) alteration, (v) lack of reasonable care or (vi) wind, ice, snow, rain, lightning, or any other weather conditions or acts of God.

OTHER THAN THE WARRANTIES SET FORTH ABOVE, BT MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE CONDITION, DESCRIPTION, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY OR AS TO ANY OTHER MATTER, AND SUCH WARRANTIES SUPERSEDE ANY ORAL OR WRITTEN WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY BT OR BY ANY OF BT'S EMPLOYEES OR REPRESENTATIVES, OR IN ANY OF BT'S BROCHURES, MANUALS, CATALOGS, LITERATURE OR OTHER MATERIALS. IN ALL CASES, BUYER'S SOLE AND EXCLUSIVE REMEDY AND BT'S SOLE OBLIGATION FOR ANY BREACH OF THE WARRANTIES CONTAINED HEREIN SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT F.O.B. SHIPPING POINT, AS BT IN ITS SOLE DISCRETION SHALL DETERMINE. BT SHALL IN NO EVENT AND UNDER NO CIRCUMSTANCES BE LIABLE OR RESPONSIBLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, DIRECT OR SPECIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT LIABILITY OR OTHERWISE OR ANY OTHER LEGAL THEORY ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, USE, INSTALLATION OR FAILURE OF ANY PRODUCT ACQUIRED BY BUYER FROM BT.

All claims for shortages, defects and non-conforming goods must be made by Buyer in writing within five (5) days of receipt of merchandise, which writing shall state with particularity all material facts, concerning the claim then known to Buyer. Upon any such complaint, Buyer shall hold the goods complained of intact and duly protected, for a period of up to sixty (60) days. Upon the request of BT, Buyer shall ship such allegedly nonconforming or defective goods, freight prepaid to BT for examination by BT's inspection department and verification of the defect. BT, at its option, will either repair, replace or issue a credit for products determined to be defective. BT's liability and responsibility for defective products is specifically limited to the defective item or to credit towards the original billing. All such replacements by BT shall be made free of charge f.o.b. the delivery point called for in the original order. Products for which replacement has been made under the provisions of this clause shall become the property of BT. Under no circumstances are products to be returned to BT without BT's prior written authorization. BT reserves the right to scrap any unauthorized returns on a no-credit basis. Any actions for breach of this contract must be commenced by Buyer within thirteen (13) months after the cause of action has accrued. A copy of BT's standard terms and conditions of sale, including the limited warranty, is available from BT upon request. Copies of the limited warranties covering third party proprietary sub-assembly modules and private label products manufactured by third parties are also available from BT on request. VideoCipher® & DigiCipher® are registered trademarks of Motorola Corp.



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