

COMM-TEC

DA-14C-Dual-2

Dual 1 to 4 Video Distribution Amplifier

User Manual (English)



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Please read this manual carefully before installing the DA-14C-Dual-2.

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COMM-TEC reserves the right to modify or discontinue designs, specifications, warranties, and policies without notice.

1.0 Overview

Thank you for buying this product. Check the contents of the packaging carefully. It contains:

- (1) DA-14C-Dual-2 unit
- (1) User Manual
- (1) Power Supply 230Volt AC to 9 Volt AC / 500mA

The DA-14C-Dual-2 is a 1-IN, 4-OUT video distribution amplifier with two sections. It can be used to split two Composite signals or one Y/C signal. The two sections can be linked to perform a 1-IN, 8-OUT Composite DA.

The DA-14C-Dual-2 has user-adjustable equalization and can balance cable runs up to 100 Meter. Placed at the end of a long cable run it can compensate signal losses and restores the signal.

2.0 Power supply

DA-14C-Dual-2 unit should be powered only with the provided AC/AC adapter. The adapter must be inserted in a 220-240 Volt AC / 50 Hz outlet.

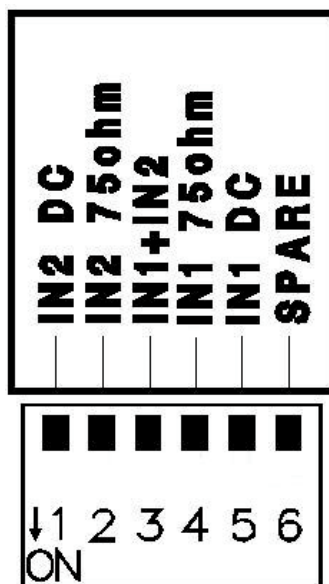
Caution

Use of any other type of power adapter can damage the unit.
Be aware of the risks of an electric shock.
Only qualified personnel should perform installations.

3.0 Settings

The unit has no internal settings.

At the rear side of the unit are 5 user programmable DIP-switches.



- 1 IN2 DC :In pos. ON input IN2 is DC coupled
- 2 IN2 75 Ω :In pos. ON input IN2 is 75 Ω terminated
- 3 IN1+IN2 :In pos. ON the two inputs are linked
- 4 IN1 75 Ω :In pos. ON input IN1 is 75 Ω terminated
- 5 IN1 DC :In pos. ON input IN1 is DC coupled

Note

The DC coupling is recommended when the input signal is clamped.

The factory configuration at shipping is as follows:

- 1 IN2 DC :OFF
- 2 IN2 75 Ω :ON
- 3 IN1+IN2 :OFF
- 4 IN1 75 Ω :ON
- 5 IN1 DC :OFF

4.0 Installation

4.1 Standard application

Standard system with 2 sources :

- Make sure that all the units to be installed are switched off.
- Connect the video sources to the two BNC identified as IN1 and IN2
- Set the DIP-switches #2 and #4 in ON position.
- Set the DIP-switch #3 in OFF position.
- Set as desired the two DIP-switches #1 and #5 to establish the DC or AC coupling.
- Connect the destinations
- Power the DA-14C-Dual-2 and the other units of the system.



4.2 Loop-through input signals with T adapter

For a loop-through of the input signals towards other units, use a "T" adapter and set the DIP-switch #4 (IN1 75ohm) and/or #2 (IN2 75ohm) in OFF position. The example below shows the setting for both inputs AC coupled, input #1 is configured for loop-through and input #2 is terminated with 75 Ohm



4.3 Linking inputs (1-IN, 8-OUT switcher)

To perform an 1-IN, 8-OUT switcher set the DIP-switches #3 (IN1 +IN2) and #4 (IN1 75ohm) in ON position. Set the DIP-switch #2 (IN2 75ohm) in OFF position and connect the input signal to the BNC IN1.



4.4 Linking inputs with T adapter

To perform an 1-IN, 8-OUT switcher with loop-through feature set the DIP-switch #3 (IN1 +IN2) in ON position and set the DIP-switches #2 (IN2 75ohm) and #4 (IN1 75ohm) in OFF position and connect the input signal to the BNC IN1 using a "T" adapter.



5.0 Equalization

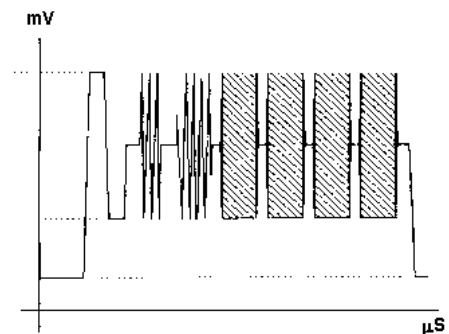
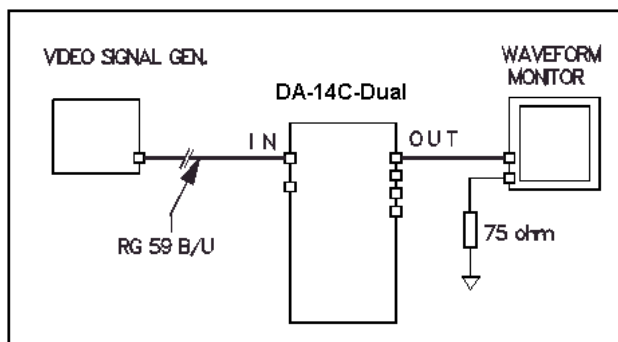
The DA-14C-Dual-2 has a Video equalization/boost feature for long cable runs. A potentiometer allows the equalization of cable lengths up to 100 m.

Note

It is advisable to install the DA-14C-Dual-2 at the end of the cable run.
For the best results use RG59 B/U coax cable.

For calibration of the system proceed as follows:

- Using a TV generator, generate a MULTIBURST signal and send it to the DA-14C-Dual-2 by the cable which shall be equalized.
- Connect a waveform monitor or oscilloscope with TV synchronism to one of the outputs of the DA-14C-Dual-2 making sure that the input of the instrument is terminated at 75Ω .



- Adjust the potentiometer EQ1 or EQ2 until all the MULTIBURST packets on the screen have the same amplitude.



Note

The potentiometers are factory set to minimum (counterclockwise)

6.0 Technical Specifications

Name	Video Distribution Amplifier
Type	DA-14C-Dual-2
Cat.-No.	708DA14CDual2
Input/Output connectors	2x/8x BNC
Input type	AC or DC, selectable with switch
Input ret. loss	35 dB at 5 MHz
Input level Max	1.5 Vpp on 75 Ω
Output gain	0 dB
Output ret. loss	36 dB at 5 MHz
Frequency response	-0.1 dB at 10 MHz -3 dB at 60 MHz
Delay	15 ns
Differential gain	0.2%
Differential phase	0.8°
Hum & noise	-90 dB unweighted
Crosstalk (two sections)	60 dB at 5 MHz
Power	9 Volt AC, 500 mA (external power supply)
Power consumption	5 VA
Dimensions (W x H x D)	200 x 44 x 100 mm, 1ru high
Enclosure	metal, slate grey RAL7015
Weight	0.5 Kg
Operating temp. range	0 – 45°C
Safety	according to EN 60065
EMC	according to EN 55103-1 and EN 55103-2
Accessories, included	external Power Supply 230 / 9 Volt AC, 50 Hz, 500 mA
Optional Accessories	RMK-1HE: 19" Rack Mount Kit for up to 2 units side-by-side, 1ru, CAT.-No. 708RMK1HE

Specifications are subject to change without notice

7.0 Warranty, Service and Returns Policy

This product is under warranty for a period of two (2) years from the date of purchase.

COMM-TEC's liability and Buyer's remedies under this warranty shall be limited solely to repair of the faulty units free of charge.

This warranty does not apply if the product has been modified, repaired by an unauthorized agent, or improperly installed, used, or maintained.

If a problem occurs first contact your dealer or COMM-TEC for trouble shooting. If verification of a problem requires factory repair, ask COMM-TEC to issue a

Return Materials Authorization (RMA) number.

Merchandise will not be accepted without a RMA number.

When returning a product to COMM-TEC in Uhingen for repair please comply with the following instructions:

- Shipping and insurance costs must be prepaid
- Use original shipping container(s), (if possible)
- Indicate the RMA number clearly on the outside of each container
- Enclose a written description of the problem

The under warranty repaired units will be returned Carriage Free to the sending party (dealer or consumer).

Outside the warranty period, COMM-TEC will repair the faulty units, charging all arising expenses of the repair e.g. labor, parts, transportation and insurance, to the sending party (dealer or consumer).

Note:

Service must be made by qualified personnel only.

**For any problems during installation and operation of the DA-14C-Dual-2
call the COMM-TEC hotline +49 07161 3000-0,
send a fax +49 07161 3000-333
or e-mail to info@comm-tec.de**

