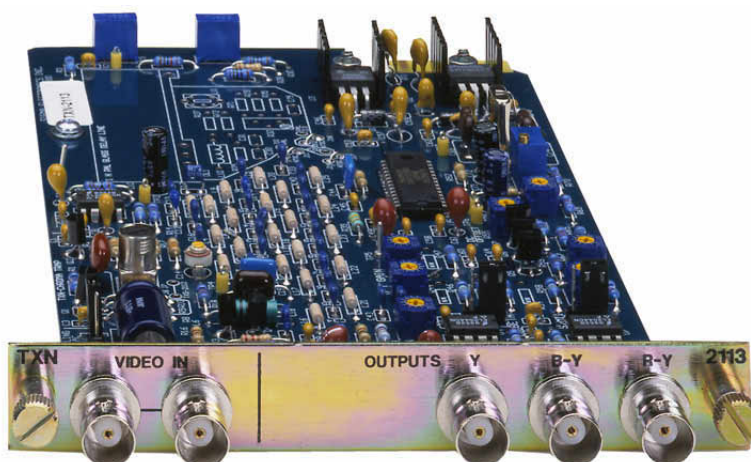


TXN-2113

TRANSCODER
NTSC TO Y,R-Y,B-Y

INSTRUCTION MANUAL



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(10-97)

TXN-2113 TRANSCODER NTSC TO Y,R-Y,B-Y

GENERAL:

The TXN-2113 transcoder is designed to provide a component output from an NTSC composite video source. The NTSC video signal connects to the BNC jack labeled "VIDEO IN". This is a looping input and requires termination into a 75Ω load. The output is provided on the BNCs labeled "OUTPUTS Y, B-Y, R-Y".

This module must be installed in a Sigma Frame for proper operation. Power is provided by the power supply within the frame. A Sigma frame is designed to accommodate any 2100 Series module. This allows the TXN-2113 to be resident with any other Sigma 2100 Series module in a common frame.

POWER:

The TXN-2113 operates from bus voltages of unregulated +20 VDC and -20 VDC. These voltages are supplied by the Sigma frame / power supply. The modules use three pin regulators to regulate the bus voltages to +5 VDC via U3 and -5 VDC via U6. Circuit protection is provided by PTC Thermistors (Positive Temperature Coefficient Thermal Resistor) which open the current path during an excessive current draw condition. Serving as a permanent fuse the PTC Thermistor will reset upon correction of the fault.

FRAMES:

The TXN-2113 module can reside in any of four different frames provided by Sigma Electronics, Inc. If this module is purchased as a component of a system, please refer to the SERIES 2100 FRAMES Instruction Manual. If the module was purchased separately, an existing frame must be present for proper operation. Sigma would like to emphasize the fact that any of the Series 2100 modules can be mixed in any frame.

When assembled in the SSB-21 Stand-Alone Box, it is assigned the model number TXN-2613. This is a single slot desk top box.

The SS-2100-2 frame is also designed for desk top applications. This frame provides two (2) slots for dual module configurations.

The SS-2100-6 frame is designed for 19 inch EIA rack installations. It provides six (6) slots for modules in 1 rack unit of space.

The SS-2100-16 frame is also available for installations in a 19 inch EIA rack. This frame provides sixteen (16) slots for modules within 3 RU.

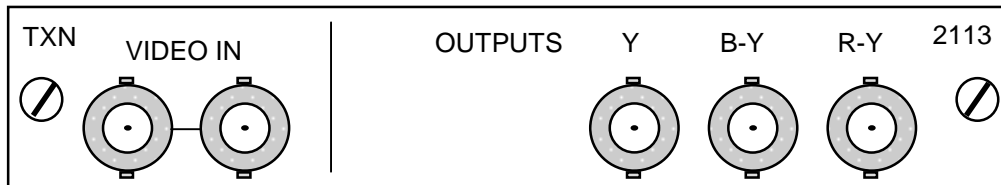
Additional information on the various frames is available. Please refer to the special section on frames if this was purchased as a complete system. If this information is not provided with this shipment, contact Sigma Electronics for assistance.

CONNECTIONS:

Wiring to the module is performed via BNC connectors (Figure 1).

INPUT: There is a looping input on the rear panel of the unit. The INPUT is a high impedance configuration. This allows the NTSC source signal to loop to other units. To ensure proper impedance matching it is necessary to terminate the input with a 75Ω load at the end of line.

OUTPUT: There are three output BNCs on the rear panel of the unit. The silk-screen designates each output signal.



REAR PANEL CONNECTIONS

Figure 1

TXN-2113 TRANSCODER NTSC TO Y,R-Y,B-Y

ADJUSTMENTS:

The following adjustments and jumpers are provided for custom conditions. All modules are set for optimum performance by Sigma Electronics. If necessary, the listed parameters may be readjusted via the controls provided

- C14: Frequency Response.
- L1: Chroma Trap, minimize chroma on luminance channel.
- R15: Chroma
- R26: Hue
- R40: Y Gain
- R42: B-Y Gain, SMPTE/MII position
- R43: B-Y Gain, BETA position
- R55: DC Offset.
- R62: R-Y Gain, SMPTE/MII position
- R63: Decoder IC Setup
- R64: Decoder IC Setup
- R67: R-Y Gain, BETA position

- J2: Coupling method, AC or DC
- J19: Signal Format selection R-Y channel, Beta or SMPTE/MII
- J21: Signal Format selection B-Y channel, Beta or SMPTE/MII

SPECIFICATIONS:

- INPUT: 1 Vp-p NTSC Composite, looping.
- RETURN LOSS: >30 dB to 6 MHz
- DC OFFSET: <±50 mV
- FREQUENCY RESPONSE: <±0.5 dB to 6 MHz (excluding notch)
- TILT, FIELD & LINE: ± 1%
- DELAY: 430 ± 30 nsec
- OUTPUT: Y,R-Y,B-Y 75Ω
- CONNECTORS: Composite Input, BNC
Y,R-Y,B-Y Outputs, BNC

TECHNICAL MANUAL:

A manual including schematics, circuit description, parts list and setup guide is available upon request. This information is intended for the service of the module. Modules should be serviced by Qualified Personnel only ! Sigma Electronics, Inc. recommends service to be performed by our Factory Service Center.

All specifications, drawings, dimensions, weights and other details are subject to change without notification. Information is intended to give a general performance and operation guideline of the product.

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