

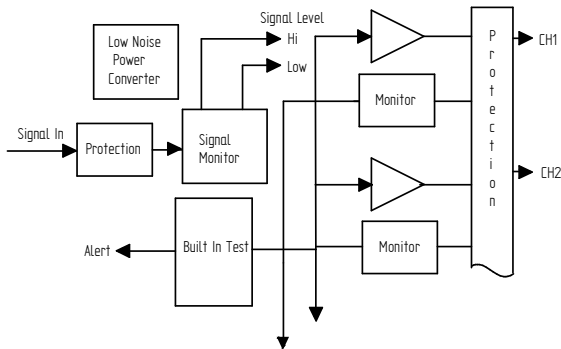
Company Datasheet #	ND0103-R
Revision #:	C
Date:	5-15-2020

# ND0103-R

## Distribution Amplifier- 3 Channel

### 5 MHz, 10 MHz

#### KEY FEATURES



The ND0103-REF is a 3 channel Distribution amplifier that operates from 20KHz to 10MHz. It is offered in a 50 Ohm version for 10 MHz. The compact package and flexible power configuration makes it a good choice for distributed systems and embedded applications. All channels are fault monitored and status is presented with front panel indicators and via a status relay. There is gain adjustment to compensate for system losses during installation. All outputs are transient protected and can withstand an indefinite fault. The two-stage design isolates the channels and prevents a large transient from damaging the source. Harmonic distortion is typically well below 35dB. Reverse polarity protected. Operation to DC allows pulse use.

#### Signal Level Indicators

A Hi and LOW indicator make sure the signal is within the operating range of the amplifier. A great field trouble shooting tool.

#### Versatile Compact Package

1.5x4x6 inch package is ideal for embedded systems or remote locations. This design is also very popular in distributed systems minimizing cable runs.

#### All Inputs and Outputs Protected

All input and outputs and transient and fault protected.

#### Versatile Power Options

The unit can be ordered to operate from 110- 220 Vac,  $\pm(9$  to 15 Vdc),  $\pm(20$  to 30 Vdc) or  $\pm(40$  to 60 Vdc)



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### Technical specifications

<b>Frequency</b>	1 to 10 MHz $\pm 2$ dB (bandwidth restricted for reference applications)
<b>Amplitude</b>	3 Volts p-p into 50 Ohm, 7 volts p-p into 1 KOhm or greater
<b>Power Required</b>	AC power adapter- 110 to 220 Vac 50/60 Hz DC options $\pm(10$ to 15 Vdc) $\pm(20$ to 30 Vdc) $\pm(40$ to 60 Vdc) Less than 6 watts Power is connected to the top two pins on the connector.
<b>Harmonic Distortion</b>	Less 30 dB
<b>Connectors</b>	Input and outputs are BNC Power connector mate is a TYCO 106527-4
<b>Status signal</b>	The bottom two pins on the power connector connect to the status relay 30 Volts, 100Ma- normally closed.
<b>Indicators</b>	3- Green Channel status- flash during a fault condition 1- Alert LED goes from Green to RED in Built- in test fails. Low and High range indicators go from green to red if the input signal exceeds 6 volts peak to peak or falls below 1 volt peak to peak.
<b>Input Impedance</b>	50 Ohm for 10 MHz Reference and 1K or greater for IRIG
<b>Adjustment</b>	$\pm 1.5$ dB
<b>Phase Noise</b>	-135dBc@1Hz, -145dBc@10Hz, -155dBc@100Hz

### Environmental and Mechanical

<b>Operating temperature</b>	0 to 50C non-condensing
<b>Storage temperature</b>	-40 to 70C
<b>Height</b>	1.55 inches
<b>Width</b>	Body is 4 inches- with flanges 5 inches
<b>Depth</b>	6 inches
<b>Weight</b>	

### Options

<b>Galvanic isolation</b>	Galvanic isolation option available for applications above 100 KHz	G
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