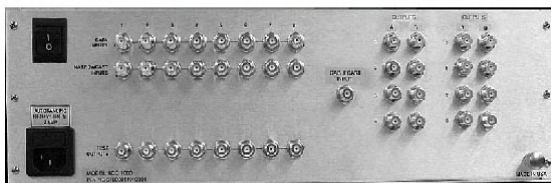
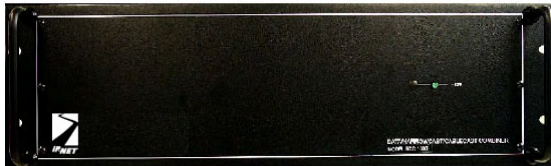


# IP-NET RF Master™ NarrowCast Combiner

Model

# NQC-1000



The **Narrowcast Combiner NQC-1000** takes advantage of the latest GaAs HBT broadband amplifier technology, state-of-the-art circuit board layout, and integration technology to solve the complexities of combining narrowcast channels with cablecast CATV channels. The **NQC-1000** is optimized for the isolation requirements of headends that combine analog video, data, telephony, telemetry, or other RF signals utilizing frequency reuse techniques. The unit eliminates dozens of headend connections, increases reliability, and allows the system engineer to efficiently and professionally combine RF narrowcast carriers with broadband CATV cablecast signals.

## Applications:

The **NQC-1000** should be applied in any network that provides advanced services such as cable telephony, cable modems, targeted Ad insertions, NVOD/VOD, digital video and or telemetry. The system is optimized to provide very high isolation between the different downstream paths, to allow different RF carriers to operate on the same frequencies in different sections of the network. The high isolation between the narrowcast inputs (two per downstream) and the cablecast inputs, coupled with the isolation of the cablecast splitting network, provides as much as -70 dB isolation between the different downstream paths. The low insertion loss presented to the narrowcast signals allow them to be input at a lower level, which together with the high isolation of the system, prevents the narrowcast signals from backfeeding into other downstream paths and causing interference problems.

## Features:

The NQC-1000 consists of eight combiners in the following configuration:

- A single downstream (cable / Broadcast) input internally split 8 ways to each of the 8 combiners.
- Two (2) independent narrowcast input ports per combiner.
- Each of the 8 combiners provides two (2) downstream outputs.
- Each of the 8 combiners provides a 20dB test point.
- Low Noise Figure and Minimal Distortion Contribution
- Fault Tolerant Design

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## RADIO FREQUENCY SPECIFICATIONS:

Frequency:	50-1000MHz
No. of Cablecast Input/Outputs:	1
No. of Cablecast Outputs:	8 x 2
Cablecast Insertion Loss:	14.5+/- 1.5MHz
No. of Cablecast Inputs:	2 per each of 8 cablecast paths
Narrowcast Insertion Loss:	11.5 +/- 1 dB
Isolation, Narrowcast Ports:	$\geq$ -60dB, 50-1000 MHz;
Isolation, Narrowcast Ports to Cablecast Ports:	$\geq$ -50dB, 50-550 MHz; $\geq$ -45dB, 550-1000 MHz
Flatness:	$\pm$ 1.5 dB
Return Loss, All Ports:	> 18 dB
Noise Figure, Cablecast Input Only:	6 dB
Recommended Analog Video Input Level:	77 channels, 16 dBmV per carrier
Connectors:	"F" Type, 75 Ohms

### ELECTRICAL:

Power Requirements:	100-240 VAC, 50/60 Hz Autoranging
Power Consumption:	19 W

### MECHANICAL:

Enclosure:	3RU (5.25"H x 19.0" W x 20.0" D)
Weight:	15.5 lbs. gross (boxed), 11 lbs. net

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