

TTL to LVDS Converter Module

A2000-15

Introduction

The ANTECH A2000 series of Transistor-Transistor Logic (TTL) to Low-Voltage Differential Signal (LVDS) converters allow for easy interface from the TTL coaxial outputs of neutron detection amplifiers to the N2000 LVDS D-sub input. The A2000-15 is the maximum 15 channel TTL to LVDS converter module, allowing for all the LVDS inputs on the N2000 to be populated with an input signal.

The A2000 series also provides a stable 5 V power TNC output that can be used to power neutron detector amplifiers, removing the need for an external power supply to the amplifiers. ANTECH recommends placing the A2000 unit near the amplifier side, minimizing the distance of the coaxial cable and therefore utilising the low interference design of LVDS and the LVDS cable assembly.

The converter is designed to exceed the specifications of the N2000, and is tested to accept bursts of incoming pulses of at least 40 MHz, or continuous summed input count rate of at least 5 Mhz. The converter can accept any pulses with a pulse width of 12.5 ns and upwards.

The A2000-15 is EMC tested to EN 61326-1:2013 with full compliance.



Features

- Compact form factor matches the N2000
- High frequency design allows data input rates exceeding that of the N2000
- 15 high count rate TTL inputs - up to 40 MHz
- Low voltage (5 V) supply rated for up to 10W
- < 3.5 W device consumption
- “Channel active” indication LEDs for aiding debugging
- Supplied with 1m LVDS - UNC 2000 Interface Cable



Benefits

- Allows utilisation of all N2000 input channels
- Compact portable design can be configured to be rack or bench mountable
- Indicator LEDs for signal channels and LV power
- Compatible with N2000 12 VDC mains adaptor

Specification

Dimensions (H x W x D)		85 mm x 230 mm x 210 mm (without handle and feet)
Weight		1.6 kg
Temperature Range	Operation	5°C to 40°C (up to 90% RH)
	Storage	5°C to 50°C (up to 90% RH)
Maximum total input count rate (momentary)		40 MHz
Minimum input pulse width		12.5 ns
Maximum total continuous count rate		5 MHz
Inputs		15 BNC (LED pulse indicators for each channel)
Outputs		15 LVDS (37-pin D sub), 5 V TNC
Input power (min)		12 VDC, 1.25 A (15 W)
Output power		5 VDC, 2 A (10 W)
Safety		BSEN 61010-1:2010
EMC		EN 61326-1:2013
Compliance		CE, UKCA