



HighTek HK-5201/5203

75 ohm -120 ohm Balun Desktop / Rack Converter

User Manual

I. Introduction

HighTek HK-5201/5203 solves signal conversion between coaxial cable (75ohm) and UTP (120ohm) in G.703/E1 (2.048M) applications, no power needed, support hot-swap.

II. HighTek HK-5201 Desktop Converter Manual

Coaxial cable and twisted pair wiring instructions:

According to user needs HK-5201 can provide two forms of BNC interface (needle and hole), both products use shielded RJ45 interface, coaxial and twisted pair wirings correspond to the following:

Signal	RJ45 Description	RJ45	BNC Description	BNC
RxA	Receive Input Negative(+)	1	Receive Input	Tip
RxB	Receive Input Positive(-)	2	Receive Ground	Ring
TxA	Transmit Output Negative(+)	4	Transmit Output	Tip
TxB	Transmit Output Positive(-)	5	Transmit Ground	Ring
S1	Transmit Ground	3		
S2	Receive Ground	6		

III. HighTek HK-5203 16-port Rack Converter Manual

HK-5203 solves the mismatch between G.703 interface coaxial and twisted pair,

balanced to unbalanced conversion, two-way conversion of 75-ohm dual coaxial to 100-120 ohm twisted pair. It can be used for intranet twisted pair to connect multi-kind network transmission applications like T1/E1/CPE equipment. Converter card, with 19 inch 2U high standard rack, can achieve up to 16-channel conversions.

Coaxial cable and twisted pair wiring instructions:

HK-5203 can provide hole-type BNC interface. Coaxial cable and twisted pair corresponding interface definition:

Signal	RJ48 Description	RJ48	BNC Description	BNC
RxA	Receive Input Negative(+)	1	Receive Input	Tip
RxB	Receive Input Positive(-)	2	Receive Ground	Ring
TxA	Transmit Output Negative(+)	4	Transmit Output	Tip
TxB	Transmit Output Positive(-)	5	Transmit Ground	Ring
	S1	Transmit Ground		3
	S2	Receive Ground		6

IV. Performance characteristics

1. Transmission line: ITU / CCITT G.703
2. Transmission rate range: 0 - 2 .048 Mbps
3. Insertion loss: less than 0.3dB (510KHz-4MHz)
4. Return loss: greater than 25dB (510KHz-4MH)
5. Working temperature: -5 °C -55 °C
6. Interface Type:
75ohm Interface: Dual coaxial interface BNC-Male/Female
120ohm Interface: 8P8C RJ45, shielded side