

# **Model: UT-G703**

**Balanced to unbalanced converter**

# **Datasheet**

## 1. Overview

The UT-G703 is a G.703 balanced to unbalanced converter that converter 75ohm copper spool to 120ohm twisted pair. With the UT-G703, users can complete signal communication between 75ohm copper spool hardware using only common 120ohm twisted-pair cable.

## 2. Major Functions & Features

- The UT-G703 is a G.703 balanced to unbalanced converter, it solves the problem of converting 75ohm copper spool to 120ohm twisted pair by multiplying the number.

## 3. Technical Parameters

- Transmission Cables: ITU/CCITT G.703(unstructured)
- Transmission rates: 2.048Mbps
- Connector of 75ohm: Double copper shaft interface BNC male or female (RG59 or 2002 coax)
- Connector of 120ohm: 8p8c RJ-45, with shield end
- Power supply: No external power supply required

## 4. Hardware definition and initial setup

- Shielded wire connection

The factory setting of UT-G703 meets the needs of most users. Users can set whether to connect shielded lines between the 75ohm copper shaft and the 120ohm interface. The jumper configuration is shown in the following figure.

RJ-45(120ohm)	Jumper	Coax BNC(75ohm)
Pin3(TX Shield)	JP1	Tx OUT Shield
Pin6(RX Shield)	JP2	Rx OUT Shield

(Note: JP1 and JP2 are disconnected when the product is shipped.)

- Twisted pair/copper spool cable wiring definition

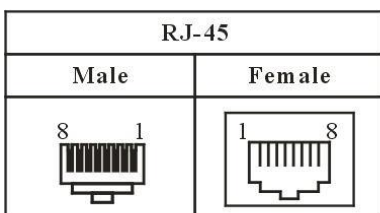


Figure1: RJ-45 pin-out

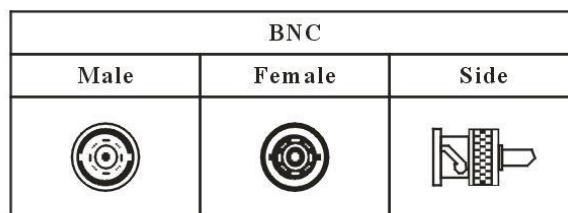


Figure2: copper shaft connector BNC

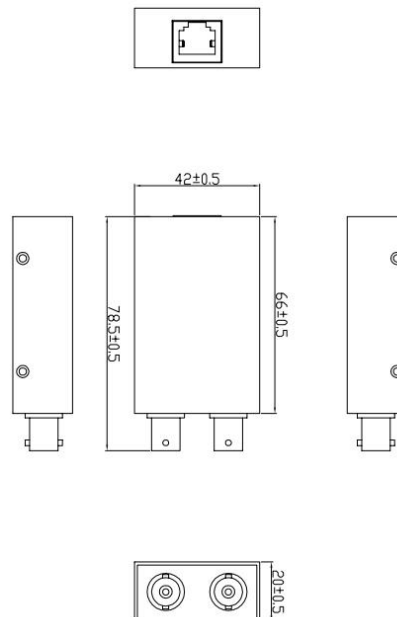
- The UT-G703 is available in two product forms (M and F) for different copper shaft cables (BNC male and BNC female). Both products use RJ-45 holders with shielded ends. Twisted pair and copper spool cable wiring definition as follows:

Signal	RJ-45 Description	DTE RJ45	BNC Description	DTE BNC
RxA	Receive Input Negative	1	Receive Input Tip	Tip
RxB	Receive Input Positive	2	Receive Ground Ring	Ring
TxA	Transmit Output Negative	4	Transmit Output Tip	Tip
TxB	Transmit Output Positive	5	Transmit Ground Ring	Ring
S1	Transmit Ground	3		
S2	Receive Ground	6		

## 5. Product View (Appearance)



## 6. Structure Dimensions



## 7. Ordering Information

Model	Signal/Interface		Baud rate	Operating Environment			Power	
	120ohm	75ohm		Temperature		Humidity	plug and play	External power
	RJ-45	BNC		-25/70°C	-40~85°C	5~95%		
UT-G703	√	√	2.048Mbps	√		√	√	