

Doc No.:X-Tra
EDITON:1.0



TECHNICAL

SPECIFICATION

Radio Frequency Coaxial Cable for Wireless Communications

1. GENERAL

This specification covers the general requirements and performance of radio frequency coaxial cable provided by X-Tra.

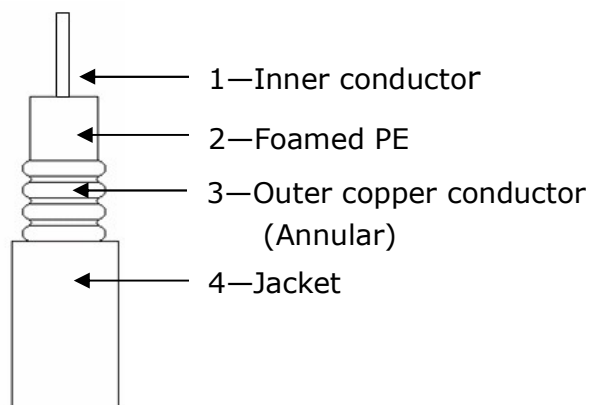
2. STANDARD

The radio frequency coaxial cable which X-Tra offered shall be designed, manufactured and tested according to standards as follows:

1、GB/T 17737.1-2000: Radio-frequency cables Part 1: Generic specification--General, definitions, requirements and test methods;

2、YD/T 1092-2004: Foamed Polyethylene Dielectric, Corrugated Copper-tube Outer Conductor, 50 ohm Radio Frequency Coaxial Cable for Wireless Communication.

3. CONSTRUCTION of 1/2"



➤ Inner conductor	Copper clad Aluminum	$4.80 \pm 0.05 \text{mm}$
➤ Insulation	Foamed polyethylene	$12.10 \pm 0.10 \text{mm}$
➤ Outer conductor	Annular corrugated copper tube	$13.90 \pm 0.25 \text{mm}$
➤ Jacket	Polyethylene (Standard Jacket)	$15.70 \pm 0.20 \text{mm}$

3.1 MECHANICAL CHARACTERISTICS

➤ Min. static minimum bending radius	80 mm(Single bend)
➤ Min. dynamic minimum bending radius	125 mm(Repeated 15 times)
➤ Tensile strength	1200 N
➤ Weight of cable	220 kg/km
➤ Lay environment temperature	-10°C~+50°C

3.2 ELECTRICAL CHARACTERISTICS

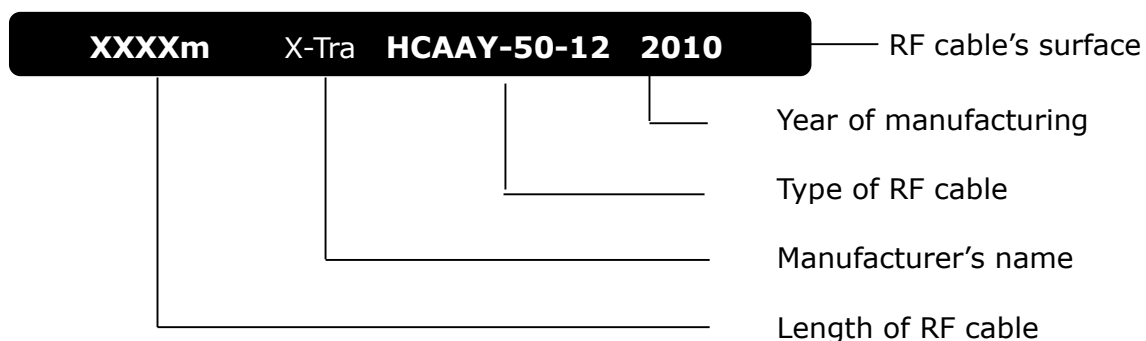
➤ Characteristics impedance	50±1 Ω	
➤ Velocity	88%	Nominal value
➤ Min. insulation resistance	3000 MΩ.km	DC 500V 1 minute
➤ Capacitance	76 pF/m	Nominal value
➤ Dielectric strength	DC 4000 V	1 minute
➤ Passive Inter Modulation distortion	≤-110 dBm	@ 2×20W
➤ RF peak voltage	1800 V	
➤ Screening Effectiveness	≥ 90 dB	
➤ Return Loss (max)	≤-28dB (VSWR: ≤1.08)	800~1000MHz
	≤-28dB (VSWR: ≤1.08)	1700~2200MHz

3.3 ATTENUATION (NOMINAL VALUE)

➤ FREQUENCY (MHz)	ATTENUATION (max)	AVERAGE POWER (kw)
✓ 960	7.10 (dB/100m)	1.06
✓ 1800	10.00 (dB/100m)	0.74
✓ 2000	10.80 (dB/100m)	0.67

4. PRINTS

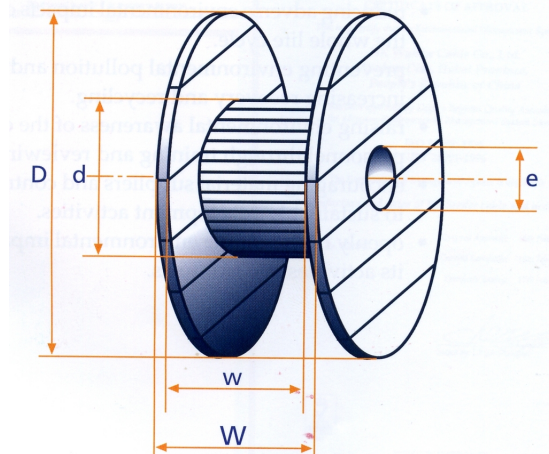
According to customer's requirement.



5. PACKING INFORMATION

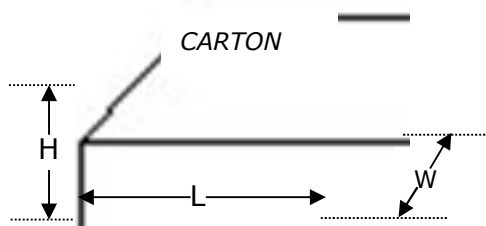
Hitachi highly foamed polyethylene dielectric coaxial cables are packed in carton or coiled on wooden reel. And carton and wooden reel are not returnable. If the cable is ordered together with connector, the connector is assembled at the end of the cable. During transportation, available transportation tool should be handled carefully to avoid damage the package.

Design 1:



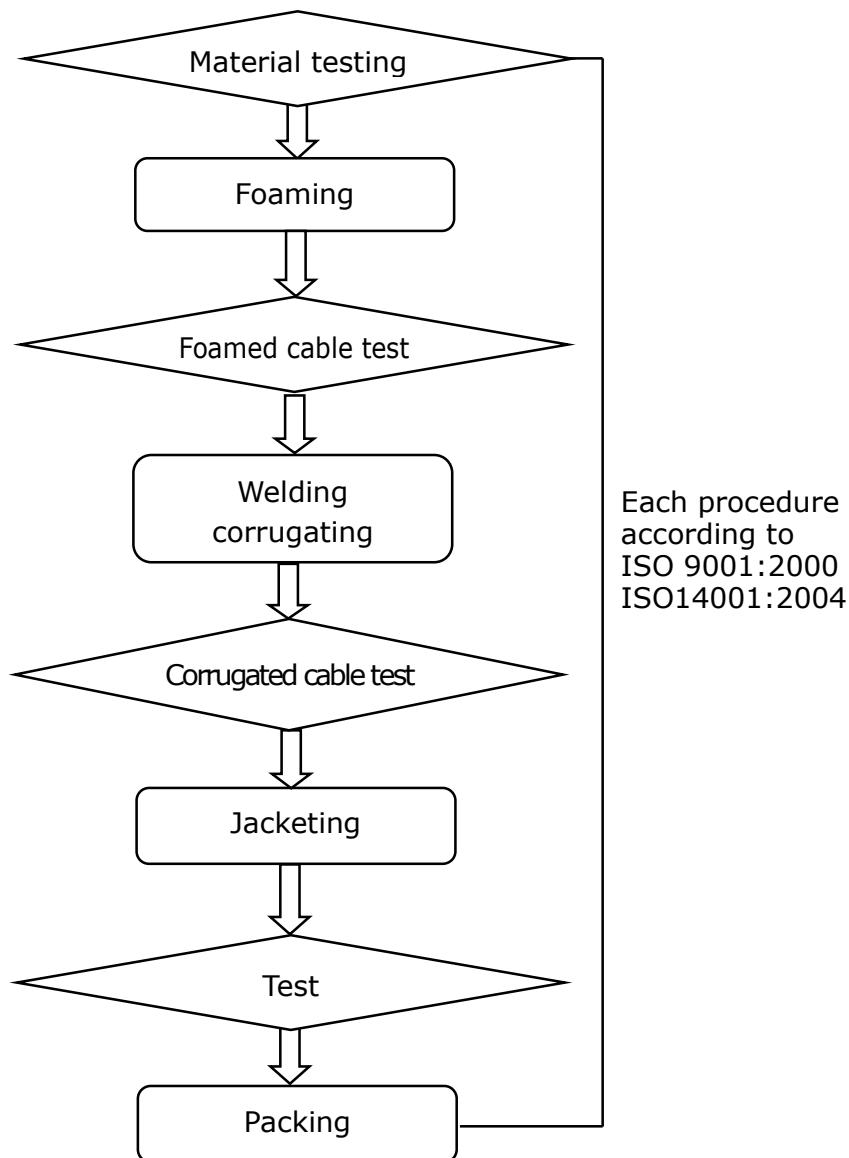
SIZE	TYPE	LENGTH (m)	DRUM TYPE	REMARK
1/2"	HCAAY-50-12	500	D:850mm W:570mm	Bakelite & wooden drum
1/2"	HCAAYZ-50-12	500	D:850mm W:570mm	Bakelite & wooden drum
1/2"	HCAAY-50-12	1000	D:950mm W:670mm	Bakelite & wooden drum
1/2"	HCAAYZ-50-12	1000	D:950mm W:670mm	Bakelite & wooden drum

Design 2:



SIZE	TYPE	LENGTH (m)	DRUM TYPE	REMARK
1/2"	HCAAY-50-12	200	L:630mm W:630mm H:260mm	CARTON PACKING
1/2"	HCAAYZ-50-12	200	L:630mm W:630mm H:260mm	CARTON PACKING

ANNEX 1: RF COAXIAL CABLE MANUFACTURE FLOW



ANNEX 2: Related Products

- 1、 N or DIN type connector;
- 2、 Jumpers for 1/2"
- 3、 Cable clamps for 1/2"
- 4、 1/2" ground kits used outdoor and indoor;
- 5、 Wall entry system;
- 6、 Cold shrink weather proofing kits;
- 7、 Daub& adhesive tape.