

Product Specification

(LF-2SM9T)

SAQ032E

Ver.1.1

Canare Electric Co., Ltd

1. Scope This product specification covers the performance of Hybrid Electrical and Fiber-Optic Camera Cable for studio and broadcast use.

2. General Specifications

- (1)Product Name Hybrid Electrical and Fiber-Optic Camera Cable
 (2)Model Name LF-2SM9T
 (3)Construction and Appearance As shown in Fig.1,2,3 and Table 1

Fig.1 Construction and color coding

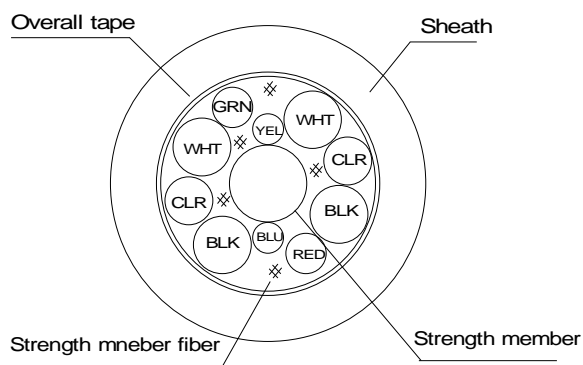


Fig.2 Optical fiber

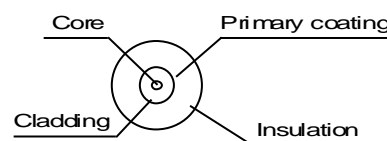


Fig.3 Power line, Control line

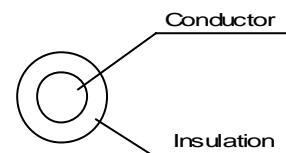


Table 1

		Item	Standard value	Remarks	
Configuration of inner units	Optical fiber	Number of units	2	Color: Blu, Yel	
		Optical Fiber	Mode field OD (μm)	8.6±0.4	Standards/ ITU-T G.652.D ITU-T G.657.A2
			Cladding OD (μm)	125±0.7	
			Concentricity error (μm)	≤ 0.5	
			Cladding non-circular ratio (%)	≤ 0.7	
			Cut-off wavelength(μm)	≤ 1.26	
	Outer diameter (mm)	0.9±0.05			
	Power line	Number of units	4	Color: Blk, Wht	
		Conductor	Construction (qty/mm)	A0.08 / 102	20AWG
			Nom. cross sec. area (mm ²)	0.51	Annealed copper
			Outer diameter (mm)	0.93	(JCS 1222)
	Insulation	Outer diameter (mm)	1.75	Polyethylene	
	Control line	Number of units	2	Color: Red, Grn	
		Conductor	Construction (qty/mm)	A0.08 / 34	25AWG
			Nom. cross sec. area (mm ²)	0.17	Annealed copper
			Outer diameter (mm)	0.54	(JCS 1222)
	Insulation	Outer diameter (mm)	1.2	Polyethylene	
	Ground wire	Number of units	2	Color: Clr	
Conductor		Construction (qty/mm)	A0.08 / 60	23AWG	
		Nom. cross sec. area (mm ²)	0.30	Annealed copper	
		Outer diameter (mm)	0.72	(JCS 1222)	
Insulation	Outer diameter (mm)	1.4	Polyethylene		
Strength member	Outer diameter (mm)	1.8	SUS		
Filler	Material	Tensile strength fiber	-		
Overall tape	Thickness (mm)	0.08	Non-woven fabric		

Table 1 (continued)

Item		Standard value	Remarks
Sheath	Thickness (mm)	1.6	Polyurethane type resin
	Color	Black, Dark Green, Dark Red	
	Marking	TACTICAL FIBER-OPTIC CABLE FOR UHDTV LF-2SM9T CANARE <Year code>	
Outer diameter (mm)		9.2±0.3	-

(4)Weight / Approx. 9.8kg/100m

(5)Package 200m or less/donut roll
Over 200m/Wooden reel

3 . Characteristics

3.1 Transmission performance

(1)Optical Fiber

Item	Length (km)	Standard Value	Test method
Attenuation ($\lambda=1.31\mu\text{m}$)	$L \geq 1.0$	$\leq 0.5L\text{dB/km}$	JIS C 6823
	$0.2 \leq L < 1.0$	$\leq 0.375L + 0.125\text{dB}$	
	$0.2 > L$	$\leq 0.2\text{dB}$	

(2)Power line

Item	Standard value	Test method
Conductor resistance	$\leq 37.5\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Insulation resistance	$\geq 10000\text{M}\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Withstand voltage	AC 2000V/1min.	UL758

(3)Control line

Item	Standard value	Test method
Conductor resistance	$\leq 113\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Insulation resistance	$\geq 10000\text{M}\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Withstand voltage	AC 2000V/1min.	UL758

(4)Ground wire Line

Item	Standard value	Test method
Conductor resistance	$\leq 63.5\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Insulation resistance	$\geq 10000\text{M}\Omega/\text{km}(20^\circ\text{C})$	JIS C 3005
Withstand voltage	AC 2000V/1min.	UL758

3.2 Mechanical Characteristics

Characteristics	Specification	Test method
Flex resistance	10000 cycles	TIA/EIA-455-104A
Impact resistance	100 cycles	TIA/EIA-455-25C
Crush resistance	2000 N/cm	TIA/EIA-455-41A

4 . Use conditions

- (1) Temperature Range : -40~+75°C
- (2) The permission tension : $\leq 1,500\text{N}$
- (3) Permission bend radius : O.D x1

Note: Testing must be performed under standard conditions set down in “JIS C 60068-1 General Environmental Testing Rules(Electric/Electronics).”

Standard Conditions: Unless otherwise specified, all tests and measurements should be performed within a normal temperature range of 15-35°C, a relative humidity of 25-75%, and an atmospheric pressure of 86-106kPa.