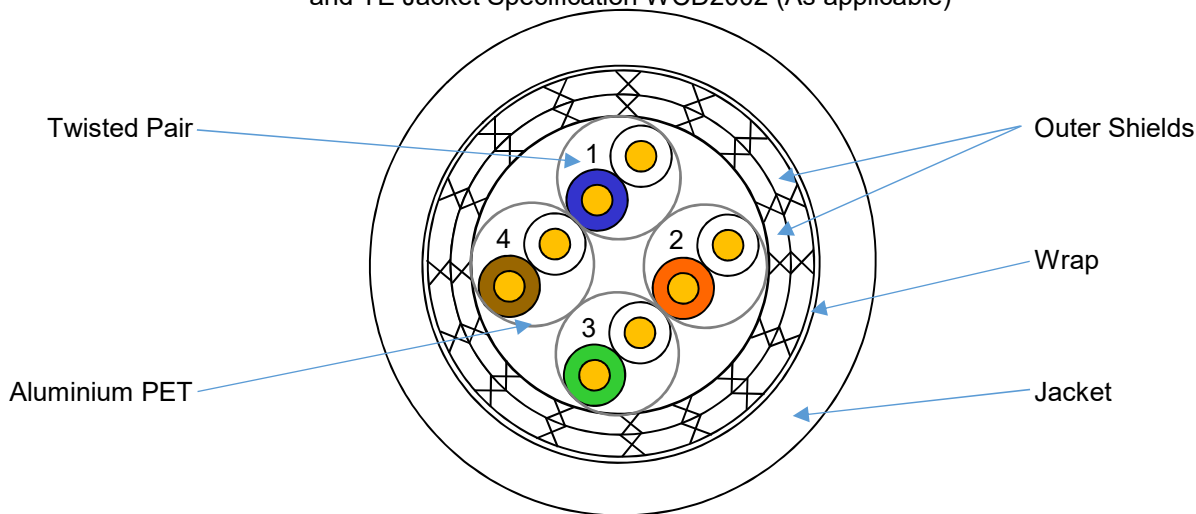


# C7X-24B114XL1FA

## CAT7 CABLE, AWG24, S/FTP (DOUBLE OUTER SHIELD), FDR-25 JACKETED

This specification sheet forms a part of the latest issue of reference standard IEC 61156-6 and TE Jacket Specification WCD2002 (As applicable)



CONSTRUCTION DETAILS		
PAIR COMPONENT		NOMINAL OD (mm)
CONDUCTOR:	AWG24, 7/0.20, Stranded, Tin coated copper	0.60
INSULATION:	Foam PE	1.35
PAIR CABLING:	2 of Foam PE component	2.70
PAIR SHIELD	Aluminium PET	2.90
CABLE ASSEMBLY		NOMINAL OD (mm)
COMPONENT BUNDLE:	4 of Foam PE Pair component	6.00
OUTER SHIELD 1:	AWG36, Tin-coated copper 92% Nominal coverage	6.60
OUTER SHIELD 2:	AWG36, Tin-coated copper 92% Nominal coverage	7.20
WRAP:	PET, Nominal thickness: 0.03mm	7.30
OUTER JACKET:	FDR-25 Minimum wall: 0.75mm	9.30 ±0.50
FINISHED CABLE		
WEIGHT:	112 kg/km Nominal	

COLOUR CODING & IDENTIFICATION		
PAIR COMPONENT	CONDUCTOR #1	CONDUCTOR #2
# 1	9 (White)	6 (Blue)
# 2	9 (White)	3 (Orange)
# 3	9 (White)	5 (Green)
# 4	9 (White)	1 (Brown)
OUTER JACKET		
JACKET COLOUR:	Jacket colour to be appended to part description in accordance with MIL-STD 681. e.g: C7X-24B114XL1FA-0 has a black jacket.	
JACKET IDENTIFICATION:	"RAYCHEM - C7X-24B114XL1FA - Year of Manufacture - Batch Number" Jacket identification to be marked in legible, contrasting colour. (Either black or white subject to jacket colour)	



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TECHNICAL DATA AND SPECIFICATIONS								
ELECTRICAL CHARACTERISTICS - TABLE I *								
Frequency MHz	Insertion Loss dB/100m (Max)	Return Loss dB/100m (Min)	NEXT dB/100m (Min)	PS NEXT dB/100m (Min)	FEXT dB/100m (Min)	TCL dB/100m (Min)	ELTCL dB/100m (Min)	Propagation Delay ns/100m (Max)
1	--	--	--	--	--	40.0	35.0	--
4	5.6	23.0	78.0	75.0	70.0	34.0	23.0	552
8	7.9	24.5	78.0	76.0	70.0	31.0	16.9	547
10	8.8	25.0	78.0	77.0	70.0	30.0	15.0	545
16	11.1	25.0	78.0	78.0	70.0	28.0	10.9	543
20	12.4	25.0	78.0	79.0	70.0	27.0	9.0	542
25	13.9	24.2	78.0	80.0	70.0	26.0	7.0	541
31.25	15.6	23.3	78.0	81.0	70.0	25.1	--	540
62.5	22.3	20.7	75.5	72.5	70.0	22.0	--	539
100	28.5	19.0	72.4	69.4	70.0	20.0	--	538
200	41.2	16.4	67.9	64.9	70.0	17.0	--	537
250	46.5	15.6	66.4	63.4	70.0	16.0	--	536
300	51.3	15.6	65.2	62.2	70.0	--	--	536
600	75.1	15.6	60.7	57.7	70.0	--	--	536

Note 1: Cable that meet the requirements of the template are not required to be measured for return loss; alternately cables that meet the return loss requirements are not required to be measured for characteristic impedance.

Note 2: If FEXT loss is greater than 70dB, ACR-F loss may not be measured.

ELECTRICAL CHARACTERISTICS - CONTINUED	
IMPEDANCE:	100 Ohms Nominal @ 1 to 600MHz
CAPACITANCE:	Mutual capacitance: ≤ 5.6nF/100m @ 1kHz Pair to ground capacitance unbalance: ≤ 1600 pF/1km
VELOCITY OF PROPAGATION:	65% Nominal
INSERTION LOSS NOTE:	IL Values IEC 61156-6 24 AWG Stranded (120% of solid conductor values)
ADDITIONAL REQUIREMENTS / INFORMATION	
COMPONENT / ELECTRICAL	In accordance with reference standard IEC 61156-6
JACKET MATERIAL	TE Specification WCD2002, Clause 5.9
FINISHED CABLE	TE Specification WCD2002, Clause 6.1 (As applicable)
TEMPERATURE RATING:	-25°C to +75°C
DELAY SKEW:	25 ns/100m Maximum
DC RESISTANCE:	145 Ω/km Maximum @ 20°C
OPERATING VOLTAGE:	300V Maximum
NOTES	
Other codes and suffixes may be added to the part description, as necessary, to capture any additional requirements imposed by the purchase order. Users should evaluate the suitability of this product for their application.	