



## 50 Ω Leaky Coaxial Cable Construction

Item		1/2" HLCAY-50-12	7/8" HLCTY-50-22	1-1/4" HLCTY-50-32	1-5/8" HLHTY-50-42
Inner conductor	Material	CCA	Smooth Copper Tube	Smooth Copper Tube	Helically Corrugated Copper Tube
	Diameter (mm)	Φ 4.80	Φ 9.00	Φ 13.1	Φ 17.3
Dielectric	Material	Foamed PE			
	Diameter (mm)	Φ 12.4	Φ 22.4	Φ 32.1	Φ 42.0
Outer conductor	Material	Annularly Corrugated Copper Tube			
	Diameter (mm)	Φ 13.90	Φ 24.90	Φ 35.80	Φ 46.5
Jacket	Material	PE or LSZH			
	Diameter (mm)	Φ 15.8	Φ 27.8	Φ 39.0	Φ 50
Cable weight kg/km	PE Jacket	225	520	920	1340
	LSZH Jacket	245	590	1000	1500

## Mechanical Properties

		1/2" HLCAY-50-12	7/8" HLCTY-50-22	1-1/4" HLCTY-50-32	1-5/8" HLHTY-50-42
Flat plate crush resistance (N/mm)		20	14	24	20
Max tensile strength(N)		1130	1500	2500	3000
Min. bending radius (single)(mm)		80	140	200	280
Min. bending radius(repeated)(mm)		125	250	380	500
Operation temperature range(°C)	PE	-40~+70			
	LSZH	-25~+70			

## Electrical Properties

		1/2" HLCAY-50-12	7/8" HLCTY-50-22	1-1/4" HLCTY-50-32	1-5/8" HLHTY-50-42
Characteristic impedance(Ω)		50±2			
Velocity of propagation(%)		88	88	88	88
Capacitance(pF/m)		76	76	76	76
Peak power rating(KW)		3000	3000	3000	3000
Inner conductor DC resistance( Ω /Km)		1.53	1.42	0.80	1.21
Dielectric strength (DC.V)		6000	10000	10000	15000
Insulation resistance (MΩ.Km)		5000			
VSWR(1M-3GHZ) Max.		1.25			

## Attenuation@20°C And Coupling Loss (50%)

		1/2" HLCAY-50-12	7/8" HLCTY-50-22	1-1/4" HLCTY-50-32	1-5/8" HLHTY-50-42
Longitudinal attenuation (dB/100m)	Frequency				
	150	3.3	1.8	1.3	0.8
	450	6.6	3.6	3.0	2.0
	900	9.5	5.3	4.3	2.7

	<b>1800</b>	<b>13.1</b>	<b>7.6</b>	<b>5.6</b>	<b>4.4</b>
	<b>2400</b>	<b>15.7</b>	<b>9.0</b>	<b>6.9</b>	<b>5.6</b>
<b>Coupling loss (dB)</b> <b>(50%/95%), 2m</b>	<b>150</b>	<b>62/78</b>	<b>66/76</b>	<b>70/80</b>	<b>72/84</b>
	<b>450</b>	<b>70/80</b>	<b>72/80</b>	<b>75/85</b>	<b>79/85</b>
	<b>900</b>	<b>71/82</b>	<b>74/85</b>	<b>77/86</b>	<b>79/85</b>
	<b>1800</b>	<b>77/88</b>	<b>80/87</b>	<b>77/88</b>	<b>80/86</b>
	<b>2400</b>	<b>77/87</b>	<b>78/88</b>	<b>78/88</b>	<b>82/88</b>

**Attenuation: VSWR= 1.0, Ambient temperature= 20°C;**

**Average power: VSWR=1.0, Ambient temperature=40°C, Inner conductor temperature= 100°C;**