DragonTECH

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COMBINER | COUPLER | ANTENNA | RF CABLE & CONNECTORS

Unit A, 11F, Wing Hong Centre, 18 Wing Hong St., Kowloon, Hongkong

238, Alameda Dr. Carlos d'Assumpcao, Ed. Praca Kin Heng Long, 20G, Macau

Data sheet

DragonTECH 50 Ohms Corrugated Copper Tube Series Coaxial Cables

Applications

- Land mobile and cellular radio
- Earth station antenna jumper cables
- Jumpers for equipments room and antenna connection
- Military data links
- VLF, AM and FM radio broadcast systems
- Point to point terrestrial microwave
- Airborne and shipboard radar systems
- Tactical, restoration and portable communication systems

Product Benefits

- Excellent Electrical performance
- 80% super-high degree foaming polyethylene insulation
- Low attenuation, low VSWR
- Light, flexible and easily-bending thin-wall corrugated copper conductor offers convenience for field work with 6 types of dimensions
- Effective moisture-proofing without injection of drying-gases
- Come with full Test Report
- 100% RoHS, LSZH, ISO9001:2000

		1-5/8"	1-1/4"	7/8"	5/8"	1/2"	3/8"	7/8" S	1/2" S	1/4" S
Physical Dimensions										
Inner Conductor (Dia.mm)		17.30	13.10	9.05	7.05	4.80	3.15	9.35	3.60	1.91
Outer Conductor (Dia.mm)		46.50	35.80	24.90	19.80	13.80	9.50	24.90	12.20	6.40
*Jacket (mm)	Thickness	1.75	1.80	1.30	1.20	1.00	0.85	1.05	0.70	0.60
	Diameter	50.00	39.40	27.50	22.20	15.80	11.20	27.00	13.60	7.60
Weight (kg/km)		1470	1085	530	420	250	135	430	210	80
Mechanical Characteristics										
Minimum Bending Radius (mm)	Single Bending	300	200	120	90	70	50	80	25	25
	10 Repeated Bendings	510	380	250	200	125	95	125	30	30
	Mobile Application	---	---	500	450	350	300	400	200	200
Max. Pulling Strength (N)		3630	5900	1470	3630	1130	800	1020	800	680

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		1-5/8"	1-1/4"	7/8"	5/8"	1/2"	3/8"	7/8"S	1/2"S	1/4"S
Electrical Characteristics										
DC Resistance ≤(Ω/km) (20℃)	Inner Conductor	0.83	0.72	1.05	0.49	1.48	3.48	2.70	2.69	9.80
	Outer Conductor	0.52	0.62	1.18	1.37	1.90	2.85	1.19	3.28	6.50
Nominal Capacitance (pF/m)		76	75	75	76.1	75.8	75	74.2	82	79.4
Characteristic Impedance (Ω)		50±1								
Velocity Ratio (%)		88	89	89	89	88	88	88	84	84
Attenuation (20℃) (dB/100m)	10MHz	0.20	0.25	0.37	0.48	0.67	1.06	0.40	1.04	1.83
	100MHz	0.67	0.83	1.19	1.55	2.17	3.42	1.30	3.41	5.89
	150MHz	0.83	1.03	1.47	1.92	2.67	4.22	1.61	4.21	7.25
	200MHz	0.98	1.20	1.72	2.24	3.10	4.90	1.87	4.91	8.41
	300MHz	1.22	1.50	2.13	2.78	3.83	6.06	2.32	6.09	10.40
	450MHz	1.53	1.87	2.65	3.46	4.75	7.51	2.88	7.59	12.80
	800MHz	2.13	2.59	3.63	4.75	6.46	10.20	3.94	10.40	17.40
	900MHz	2.29	2.77	3.88	5.07	6.87	10.90	4.22	11.20	18.40
	1000MHz	2.43	2.94	4.12	5.38	7.28	11.60	4.46	11.80	19.60
	1500MHz	3.11	3.73	5.18	6.78	9.09	14.40	5.60	14.90	24.30
	1800MHz	3.47	4.16	5.75	7.54	10.10	16.00	6.21	16.60	26.90
	2000MHz	3.71	4.43	6.11	8.02	10.70	17.00	6.59	17.60	28.50
	2500MHz	4.27	5.08	6.95	9.15	12.10	19.30	7.50	19.20	32.10
	3000MHz	---	5.68	7.76	10.20	13.40	21.40	8.35	22.40	35.60
Mean Power Rating (kW) (Ambient Temperature 40℃, Inner Conductor 80℃)	10MHz	54.30	38.60	24.60	16.70	11.30	7.23	21.50	10.10	3.97
	100MHz	16.40	11.70	7.56	5.14	3.49	2.24	6.62	3.08	1.23
	200MHz	11.30	8.12	5.26	3.57	2.44	1.56	4.61	2.14	0.865
	300MHz	9.01	6.52	4.24	2.87	1.97	1.26	3.72	1.72	0.701
	450MHz	7.18	5.22	3.41	2.31	1.59	1.02	2.99	1.38	0.567
	800MHz	5.15	3.78	2.48	1.68	1.17	0.748	2.19	1.01	0.419
	1000MHz	4.52	3.32	2.19	1.48	1.04	0.663	1.94	0.889	0.372
	1500MHz	3.54	2.62	1.74	1.18	0.833	0.53	1.54	0.705	0.299
	1800MHz	3.17	2.35	1.57	1.06	0.753	0.479	1.39	0.634	0.271
	2000MHz	2.96	2.21	1.48	0.996	0.71	0.451	1.31	0.597	0.256
	2500MHz	2.58	1.92	1.30	0.868	0.627	0.40	1.15	0.525	0.226
	3000MHz	---	1.72	1.16	0.783	0.565	0.358	1.04	0.469	0.204
DC Breakdown Voltage (V) ≥		11000	9000	6000	5000	4000	2500	6000	2500	1600
RF Peak Power (kW)		315	205	91	62	40	15.6	90	15.6	6.4
Cut-off frequency (GHz)		3.00	4.00	6.00	6.10	8.80	13.50	4.90	10.20	20.40
Shielding Effectiveness (dB)		>>120								
Insulation Resistance(MΩ·km)		≥5×10³								
VSWR	0.01GHz—3GHz	---		≤1.15						
	0.01GHz—2GHz	≤1.15		---						
	820MHz—960MHz 1.7GHz—1.9GHz 2.1GHz—2.2GHz	≤1.10