

UTiFORM[®] TIN-DIPPED HAND-FORMABLE CABLE



UTiFORM FEATURES AND BENEFITS

HAND-FORMABLE

- No complicated bend specifications required
- Retains Shape
- Can be re-formed a limited number of times with no damage

AVAILABLE WITH LOW-DENSITY DIELECTRICS

- Improved insertion loss
- Higher operating temperatures
- Improved phase and IL stability vs. temperature
- Increased power handling
- Dedicated connectors available

EASY TO USE

- Accepts standard semi-rigid connectors
- Cuts and strips with standard semi-rigid machines
- Form and route at installation
- No bend tooling required
- Tinned outer conductor for improved solderability

PERFORMANCE

- —125dB at 1 GHz RF Shielding
- Higher temperature rating than semi-rigid cable
- Excellent attenuation and VSWR
- Low cost



AVAILABILITY

- Stock
- Packaged on spools in lengths of 50, 100, 250, 500 or 1000 feet
- Metric lengths available
- Halogen-free jacket options available

UTiFORM HAND-FORMABLE CABLES

DIMENSIONS

	UT-47-Form	UT-47-Form-F	UT-85-Form
Jacket Diameter			
[in]	—	0.063	—
[mm]	—	1.600	—
Outer Conductor Diameter			
[in]	0.047	0.047	0.085
[mm]	1.194	1.194	2.159
Dielectric Diameter			
[in]	0.034	0.035	0.070
[mm]	0.864	0.889	1.778
Wire Diameter			
[in]	0.011	0.011	0.020
[mm]	0.279	0.279	0.508

MATERIALS

Wire	SPCW	SPCW	SPCW
Dielectric	PTFE	PTFE	PTFE
Outer Conductor	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid
Jacket	—	FEP	—
RoHS Compliant	YES	YES	YES

MECHANICAL CHARACTERISTICS

Maximum Temperature [°C]	200	200	200
Bend Radius			
[in]	0.10	0.10	0.13
[mm]	2.54	2.54	3.18
Weight			
[grams/ft]	1.4	2.3	3.8
[grams/m]	4.6	6.9	12.5

ELECTRICAL CHARACTERISTICS

Characteristic Impedance [ohms]	50	50	50
Capacitance [Nominal]			
[pF/ft]	29.0	29.0	29.0
[pF/m]	95.1	95.1	95.1
Velocity of Propagation [%]	70%	70%	70%
Maximum Voltage, VRMS	1000	1000	1500
Signal Delay			
[ns/ft]	1.45	1.45	1.45
[ns/m]	4.76	4.76	4.76
Frequency Range	DC-20	DC-20	DC-20
Typical Attenuation [dB/100ft] /Average Power [Watts CW] @ 20°C Sea Level	<u>ATTEN</u>	<u>POWER</u>	<u>ATTEN</u>
			<u>POWER</u>
0.5 GHz	29	67	16
1.0 GHz	41	47	22
10.0 GHz	140	14	80
18.0 GHz	194	10	113

UTiFORM HAND-FORMABLE CABLES

DIMENSIONS

	UT-85-Form-F	UT-85C-Form	UT-85C-Form-F
Jacket Diameter			
[in]	0.106	—	0.106
[mm]	2.692	—	2.692
Outer Conductor Diameter			
[in]	0.085	0.085	0.085
[mm]	2.159	2.159	2.159
Dielectric Diameter			
[in]	0.070	0.070	0.070
[mm]	1.778	1.778	1.778
Wire Diameter			
[in]	0.020	0.020	0.020
[mm]	0.508	0.508	0.508

MATERIALS

Wire	SPCW	SPC	SPC
Dielectric	PTFE	Solid PTFE	Solid PTFE
Outer Conductor	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid
Jacket	FEP	—	FEP
RoHS Compliant	YES	YES	YES

MECHANICAL CHARACTERISTICS

Maximum Temperature [°C]	200	200	200
Bend Radius			
[in]	0.13	0.13	0.13
[mm]	3.18	3.18	3.18
Weight			
[grams/ft]	4.7	3.8	4.7
[grams/m]	15.4	12.5	15.4

ELECTRICAL CHARACTERISTICS

Characteristic Impedance [ohms]	50	50	50
Capacitance [Nominal]			
[pF/ft]	29.0	29.0	29.0
[pF/m]	95.1	95.1	95.1
Velocity of Propagation [%]	70%	70%	70%
Maximum Voltage, VRMS	1500	1500	1500
Signal Delay			
[ns/ft]	1.45	1.45	1.45
[ns/m]	4.46	4.76	4.76
Frequency Range	DC-20	DC-20	DC-20
Typical Attenuation [dB/100ft] /Average Power [Watts CW] @ 20°C Sea Level	<u>ATTEN</u>	<u>POWER</u>	<u>ATTEN</u> <u>POWER</u>
0.5 GHz	16	211	16 211
1.0 GHz	22	148	22 148
10.0 GHz	80	44	80 44
18.0 GHz	113	32	113 32

UTiFORM HAND-FORMABLE CABLES

DIMENSIONS

	UT-141-Form	UT-141-Form-F	UT-141C-Form
Jacket Diameter			
[in]	—	0.161	—
[mm]	—	4.089	—
Outer Conductor Diameter			
[in]	0.141	0.141	0.141
[mm]	3.581	3.581	3.581
Dielectric Diameter			
[in]	0.114	0.114	0.114
[mm]	2.896	2.896	2.896
Wire Diameter			
[in]	0.035	0.035	0.035
[mm]	0.889	0.889	0.889

MATERIALS

Wire	SPCW	SPCW	SPC
Dielectric	Solid PTFE	PTFE	Solid PTFE
Outer Conductor	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid
Jacket	—	FEP	—
RoHS Compliant	YES	YES	YES

MECHANICAL CHARACTERISTICS

Maximum Temperature [°C]	200	200	200
Bend Radius			
[in]	0.38	0.38	0.38
[mm]	9.53	9.53	9.53
Weight			
[grams/ft]	12.7	15.4	12.7
[grams/m]	41.7	50.5	41.7

ELECTRICAL CHARACTERISTICS

Characteristic Impedance [ohms]	50	50	50
Capacitance [Nominal]			
[pF/ft]	29.0	29.0	29.0
[pF/m]	95.1	95.1	95.1
Velocity of Propagation [%]	70%	70%	70%
Maximum Voltage, VRMS	1900	1900	1900
Signal Delay			
[ns/ft]	1.45	1.45	1.45
[ns/m]	4.76	4.76	4.76
Frequency Range	DC-20	DC-20	DC-20
Typical Attenuation [dB/100ft] /Average Power [Watts CW] @ 20°C Sea Level	<u>ATTEN</u>	<u>POWER</u>	<u>ATTEN</u>
			<u>POWER</u>
0.5 GHz	9	546	9
1.0 GHz	12	381	12
10.0 GHz	48	109	48
18.0 GHz	71	78	71

UTiFORM HAND-FORMABLE CABLES

DIMENSIONS

	UT-141C-Form-F	UT-250C-Form	UT-250C-Form-F
Jacket Diameter			
[in]	0.161	—	0.277
[mm]	4.089	—	7.036
Outer Conductor Diameter			
[in]	0.141	0.246	0.246
[mm]	3.581	6.248	6.248
Dielectric Diameter			
[in]	0.114	0.204	0.204
[mm]	2.896	5.181	5.181
Wire Diameter			
[in]	0.035	0.064	0.064
[mm]	0.889	1.626	1.626

MATERIALS

Wire	SPC	SPC	SPC
Dielectric	Solid PTFE	Solid PTFE	Solid PTFE
Outer Conductor	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid
Jacket	FEP	—	FEP
RoHS Compliant	YES	YES	YES

MECHANICAL CHARACTERISTICS

Maximum Temperature [°C]	200	200	200
Bend Radius			
[in]	0.38	0.50	1.00
[mm]	9.53	12.70	25.40
Weight			
[grams/ft]	15.4	51.2	56.0
[grams/m]	50.5	168.0	183.7

ELECTRICAL CHARACTERISTICS

Characteristic Impedance [ohms]	50	50	50
Capacitance [Nominal]			
[pF/ft]	29.0	29.0	29.0
[pF/m]	95.1	95.1	95.1
Velocity of Propagation [%]	70%	70%	70%
Maximum Voltage, VRMS	1900	3000	3000
Signal Delay			
[ns/ft]	1.45	1.45	1.45
[ns/m]	4.76	4.76	4.76
Frequency Range	DC-20	DC-18	DC-18
Typical Attenuation [dB/100ft] / Average Power [Watts CW] @ 20°C Sea Level	<u>ATTEN</u>	<u>POWER</u>	<u>ATTEN</u>
			<u>POWER</u>
0.5 GHz	9	546	5
1.0 GHz	12	381	8
10.0 GHz	48	109	33
18.0 GHz	71	78	50
			1460
			1011
			274
			191
			546
			381
			109
			78

UTiFORM LOW LOSS CABLES

DIMENSIONS

	UT-85C-Form-LL	UT-85C-Form-LL-F	UT-141C-Form-LL	UT-141C-Form-LL-F
Jacket Diameter				
[in]	—	0.106	—	0.161
[mm]	—	2.692	—	4.089
Outer Conductor Diameter				
[in]	0.085	0.085	0.141	0.141
[mm]	2.159	2.159	3.581	3.581
Dielectric Diameter				
[in]	0.070	0.070	0.114	0.114
[mm]	1.778	1.778	2.896	2.896
Wire Diameter				
[in]	0.023	0.023	0.035	0.035
[mm]	0.584	0.584	0.889	0.889

MATERIALS

Wire	SPC	SPC	SPC	SPC
Dielectric	LD PTFE	LD PTFE	LD PTFE	LD PTFE
Outer Conductor	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid	Tin-Dipped Braid
Jacket	—	FEP	—	FEP
RoHS Compliant	YES	YES	YES	YES

MECHANICAL CHARACTERISTICS

Maximum Temperature [°C]	225	225	225	200
Bend Radius				
[in]	0.25	0.25	0.5	0.5
[mm]	6.35	6.35	12.7	12.7
Weight				
[grams/ft]	3.7	3.7	12.4	15.4
[grams/m]	12.1	12.1	40.7	50.5

ELECTRICAL CHARACTERISTICS

Characteristic Impedance [ohms]	50	50	50	50
Capacitance [Nominal]				
[pF/ft]	27.0	27.0	27.0	27.0
[pF/m]	88.6	88.6	88.6	88.6
Velocity of Propagation [%]	77%	77%	77%	77%
Maximum Voltage, VRMS	1500	1500	1900	1900
Signal Delay				
[ns/ft]	1.32	1.32	1.32	1.32
[ns/m]	4.33	4.33	4.33	4.33
Frequency Range	DC-20	DC-20	DC-20	DC-20
Typical Attenuation [dB/100ft] /Average Power [Watts CW] @ 20°C Sea Level	<u>ATTEN</u> <u>POWER</u>	<u>ATTEN</u> <u>POWER</u>	<u>ATTEN</u> <u>POWER</u>	<u>ATTEN</u> <u>POWER</u>
0.5 GHz	14 228	14 228	9 593	9 593
1.0 GHz	20 161	20 161	12 418	12 418
10.0 GHz	66 50	66 50	48 128	48 128
18.0 GHz	92 37	92 37	71 94	71 94