

Littlebend™

Ultra-Flexible High-Performance Cables

sales@hasco-inc.com

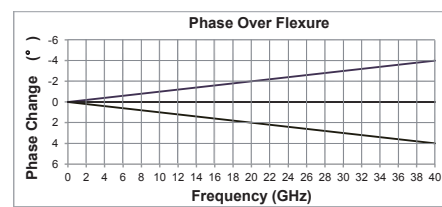
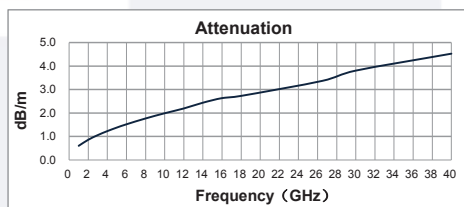
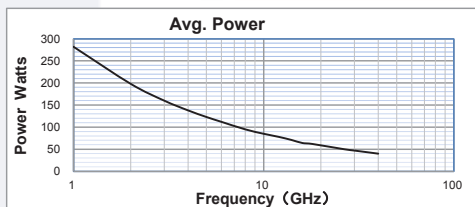
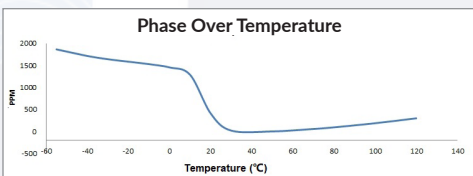
5214 Bonsai Street, Moorpark, CA 93021 • (888) 498-3242 • www.hasco-inc.com

CABLE FEATURES:

- **Super Flexible with a Minimum Bend Radius of .20" (5mm)**
- **High Shielding Effectiveness of >90dB**
- **High Retention Force of >90N**
- **Eliminates the Need for Right Angle Connectors**
- **Phase and Amplitude Stable**

The HLB098 Littlebend Flexible Cable is a 0.098" cable design with a steel braid that is capable of a 0.20" minimum bend radius. It is well suited for demanding microwave interconnect requirements, such as dense microwave packaging. The Littlebend cable can replace Right Angle connectors with minimal performance degradation due to its tight bend radius.

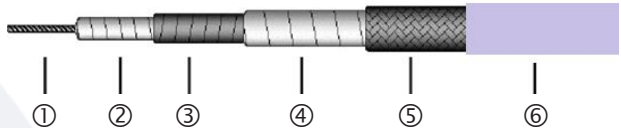
This selector guide offers critical parameters to identify the best Littlebend cable for your specific application.



HLB098 CABLE SPECIFICATIONS

IMPEDENCE	50 Ω
VELOCITY OF PROPAGATION	76%
TIME DELAY	1.31 ns/ft (4.39 ns/m)
CAPACITANCE	27.4 pF/ft (90 pF/m)
WITHSTANDING VOLTAGE	900V
INSULATION RESISTANCE	1,000 M Ω
SHIELDING EFFECTIVENESS	<-90dB
PHASE STABILITY VS FLEXURE	$\pm 4^\circ$ @ 40 GHz
AMPLITUDE STABILITY	$< \pm 0.05$ dBm @18 GHz
DURABILITY	1,000 Cycles Min.
OPERATING TEMPERATURE RANGE	-65° C to +165 ° C
MIN. BEND RADIUS	Static: 0.2" (5mm) Repeated: 0.4in (10mm)
DURABILITY	1,000 Cycles Min.
RoHS COMPLIANT	

HLB098 CABLE CONSTRUCTION



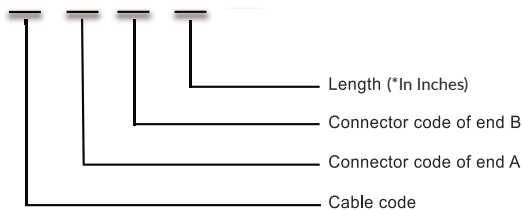
① CABLE CENTER CONDUCTOR	Silver Plated Solid Copper
② CABLE DIELECTRIC	Low Denisty PTFE
③ CABLE OUTER CONDUCTOR	Silver Plated Copper Strip
④ CABLE INTERLAYER	Aluminum Foil
⑤ CABLE OUTER SHIELD	Stainless Steel Braid
⑥ CABLE JACKET	FEP

HLB098 CABLE ATTENUATION (Typical @ 25°C) & Power (40°C, Sea Level)

Frequency GHz	1	2	3	4	5	6	8	10	12	14	16	18	26.5	30	40
Attenuation dB/m	0.60	0.86	1.06	1.23	1.38	1.52	1.77	1.99	2.19	2.44	2.64	2.73	3.37	3.81	4.53
Avg. Power W	103	72	59	50	45	41	35	31	28	27	25	23	18	16	14

HOW TO CONFIGURE LITTLEBEND CABLES

HLB098-S1-SMPJ-12*



CONNECTOR CODES

S1	SMA Male
29P	2.92mm Male
24P	2.4mm Male
SMPJ	SMP Female
SMPJRA	SMP Female Right Angle
S2BH	SMA Female Bulkhead
SMPPBH	SMP Male Bulkhead

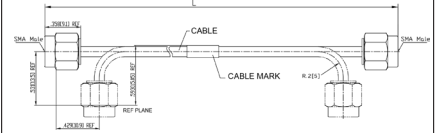
*NOTE: Maximum frequency of final cable configuration will be limited to the maximum frequency of the lowest frequency connector.

CONNECTOR TYPE	CONNECTOR CODE	FREQUENCY*	MATERIAL	VSWR
	SMA Male = S1	26.5 GHz	Stainless Steel	1.30:1
	2.92mm Male = 29P	40 GHz	Stainless Steel	1.35:1
	2.4mm Male = 24P	50 GHz	Stainless Steel	1.35:1
	SMP Female = SMPJ	40 GHz	Brass	1.35:1
	SMP Female Right Angle = SMPJRA	18 GHz	Brass	1.30:1
	SMA Female Bulkhead = S2BH	26.5 GHz	Stainless Steel	1.30:1
	SMP Male Bulkhead = SMPPBH	18 GHz	Stainless Steel	1.30:1

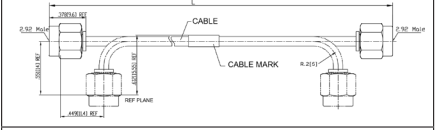
SAMPLE CONFIGURATIONS

Additional Configurations
Available Upon Request

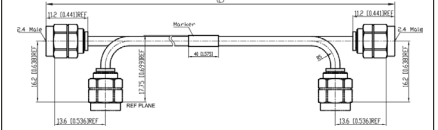
Part # HLB098-S1-S1-L (L=Length)
SMA Male to SMA Male: 26.5 GHz
Max. VSWR: 1.35:1 @ 26.5 GHz



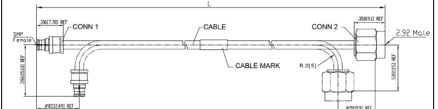
Part # HLB098-29P-29P-L (L=Length)
2.92mm Male to 2.92mm Male: 40 GHz
Max. VSWR: 1.35:1 @ 40 GHz



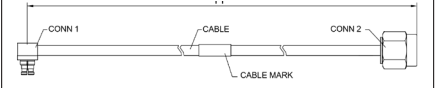
Part # HLB098-24P-24P-L (L=Length)
2.4mm Male to 2.4mm Male: 50 GHz
Max. VSWR: 1.35:1 @ 50 GHz



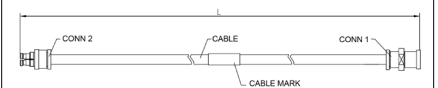
Part # HLB098-S1-SMPJ-L (L=Length)
SMA Male to SMP Female: 26.5 GHz
Max. VSWR: 1.35:1 @ 26.5 GHz



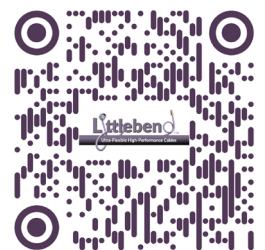
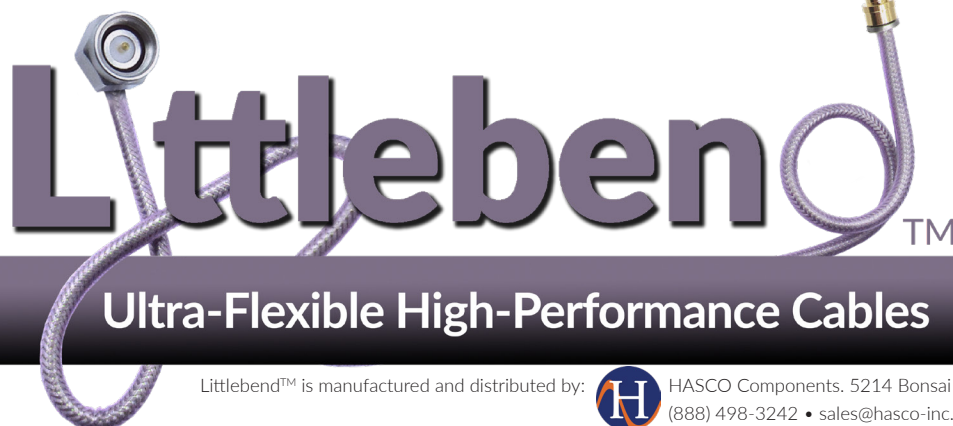
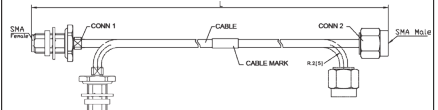
Part # HLB098-S1-SMPJRA-L (L=Length)
SMA Male to SMP Female Right Angle: 18 GHz
Max. VSWR: 1.35:1 @ 18 GHz



Part # HLB098-SMPJ-SMPPBH-L (L=Length)
SMP Female to SMP Male Bulkhead: 18 GHz
Max. VSWR: 1.35:1 @ 18 GHz



Part # HLB098-S1-S2BH-L (L=Length)
SMA Male to SMA Female Bulkhead: 18 GHz
Max. VSWR: 1.35:1 @ 18 GHz



Littlebend™ is manufactured and distributed by:



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