

QH160

Flexible, Alternate to semi-rigid cable

Features:
 * Phase Stability
 * Low PIM

Applications:
 * Phased-array Radar
 * Interconnection in and between equipment

Electrical

Frequency:	DC~18GHz
Cut-off Frequency:	110GHz
Impedance:	50Ω
Velocity of Propagation:	70%
Shielding Effectiveness:	90dB min.
Voltage Withstand:	300V DC

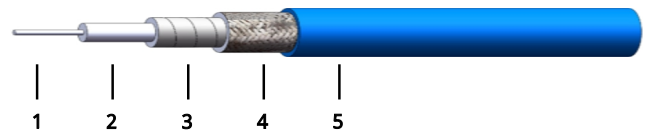
Mechanical

Bend Radius (installation):	6.0mm
Bend Radius (repeated):	16.0mm
Weight:	5g/m

Environmental

Temperature: -55~+125°C

Construction



No.	Name	Size (mm)	Material
1	Inner Conductor	0.30	Silver-plated copper
2	Dielectric	0.95	PTFE
3	Inner Shield	1.10	Silver-plated copper tape
4	Outer Shield	1.35	Silver-plated copper braid
5	Jacket	1.60	PFA

Attenuation & Power Handling

Frequency (GHz)	0.3	0.5	1	3	6	10	12.4	18
Attenuation*1 (dB/100m)	73.8	95.4	135.2	235.1	334.0	433.0	483.2	584.7
Average Power*2 (W)	150	116	82	47	33	26	23	19

[1] VSWR:1.0; Ambient: +25°C (77°F)

[2] VSWR:1.0; Ambient: +40°C (104°F); Sea level

Calculate Cable Attenuation: Attenuation (dB/100m) = $4.248276 * \sqrt{F} \text{ (MHz)} + 0.000820 * F \text{ (MHz)}$

Calculate Connector Attenuation: Attenuation (dB) = $0.03 * \sqrt{F} \text{ (GHz)}$

How To Order

QH160-X-Y-Z

X: Frequency in GHz

Y: Connector type

Z: Length in meters

Examples:

To order a QH160 cable assembly, DC-18GHz, SMA male to SMA female, 0.5 meter, specify QH160-18-SSF-0.5.

Connector naming rules:

G - Mini-SMP (mateable with GPPO & SSMP, 18GHz, VSWR 1.3)

P - SMP (18GHz, VSWR 1.3)

S - SMA (18GHz, VSWR 1.25)

X - MMCX (6GHz, VSWR 1.3)

M - MCX (6GHz, VSWR 1.3)

Female Connector - Add 'F' after connector name

Right Angle - Add 'R' after connector name (VSWR increase 0.1)

Mating Connector

QCV-MG-047-1

1.85mm male, Stainless steel

QC2-MG-047-1

2.4mm male, Stainless steel

QCG-MB-047-1

SSMP male, Beryllium copper

QCG-MRB-047-1

SSMP male, Right angle, Beryllium copper

QCK-MG-047-1

2.92mm male, Stainless steel

QCP-FB-047-1

SMP female, Beryllium brass

QCA-FL2B-047-1

SSMA female, Beryllium copper

QCS-MG-047-1

SMA male, Stainless steel

QCS-MRG-047-1

SMA male, Right angle, Stainless steel

QCS-FG-047-1

SMA female, Stainless steel

