

(Click on any line below to go directly to the appropriate page)

MMCX SERIES

Technical Characteristics
Interface Mating Dimensions
Semi-Rigid,Semi-Flexible Cable
Connectors
Flexible Cable Connectors
PCB Mount Receptacles
Bulkhead Mount Receptacles

MCX SERIES

Technical Characteristics
Interface Mating Dimensions
Semi-Rigid,Semi-Flexible Cable
Connectors
Flexible Cable Connectors
PCB Mount Receptacles

MCX SERIES(75ohm)
Dimensions Of Appli-
cable Cables
Cable Group

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<http://www.xianconnector.com>

<http://www.globalsources.com/xiancnt.co>

CNT

RF

CONNECTORS CATALOG



西安科耐特科技有限责任公司

XI'AN CONNECTOR TECHNOLOGY LTD



The MMCX series are snap-on coupling micro-miniature coaxial connectors which are developed as smaller version of MCX connectors according to the specifications of CECC 22340. They have the characteristics of light weight, small size, vibration-proof and reliable contact, are widely used to connect with RF coaxial cables in the smallest of instruments as well as personal communication equipments.

TECHNICAL CHARACTERISTICS

Environmental

Temperature range	-40~ +90 °C
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Electrical Characteristics

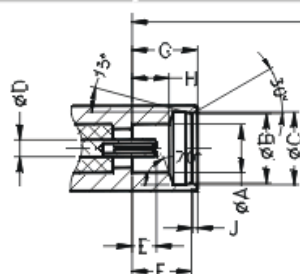
Characteristic impedance	50Ω
Working voltage	170V
Frequency range	0-6GHz
Dielectric withstanding voltage	500V
Contact resistance	Center contact: ≤ 10mΩ , Outer contact: ≤ 5mΩ
Insulation resistance	≥ 1000MΩ
VSWR	≤ 1.25

Mechanical Characteristics

Durability	500 cycles
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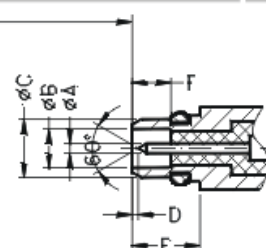
INTERFACE MATING DIMENSIONS

Letter	PLUG(mm)		Letter	JACK(mm)	
	Minimum	Maximum		Minimum	Maximum
A	2.41	-	A	0.38	0.42
B	2.84	2.90	B	1.58	1.62
C	3.00	3.04	C	-	2.40
D	0.71	-	D	0.00	0.25
E	0.90	1.20	E	2.70	-
F	2.30	2.34	F	1.45	-
G	2.60	-			
H	1.57	1.63			
J	-	0.23			



PLUG

REFERENCE PLANE



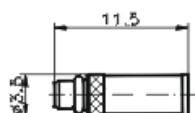
JACK

MATERIAL AND PLATING

Body	Brass, gold/nickel plated
Male center contacts	Phosphor bronze, gold plated
Female center contacts	Beryllium copper, gold plated
Insulators	PTFE
Crimp ferrules	Copper alloy, gold or nickel plated

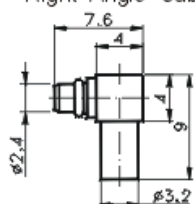
1. SEMI-RIGID, SEMI-FLEXIBLE CABLE CONNECTORS

Straight Cable Jack, Solder



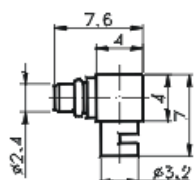
Part Number	GB Type	Cable Group	Remarks
MMCX1111001	MMCX-JB2	.085"	

Right Angle Cable Jack, Crimp



MMCX2111001	MMCX-JWB2	.085"	
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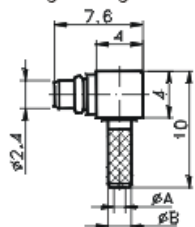
Right Angle Cable Jack, Solder



MMCX2111002	MMCX-JW2H	.085"	
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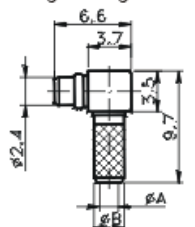
2. FLEXIBLE CABLE CONNECTORS

Right Angle Cable Jack, Crimp



MMCX2112001	MMCX-JW2	2/50S	A= 1.0, B=2.0
MMCX2112005	MMCX-(E)JW2.5	2.6/50S	A= 1.6, B=2.3
MMCX2112006	MMCX-(E)JW2.5D	2.6/50D	A= 1.6, B=2.6
MMCX2112002	MMCX-JW3	3/50S	A= 1.6, B=2.6

Right Angle Cable Jack, Crimp



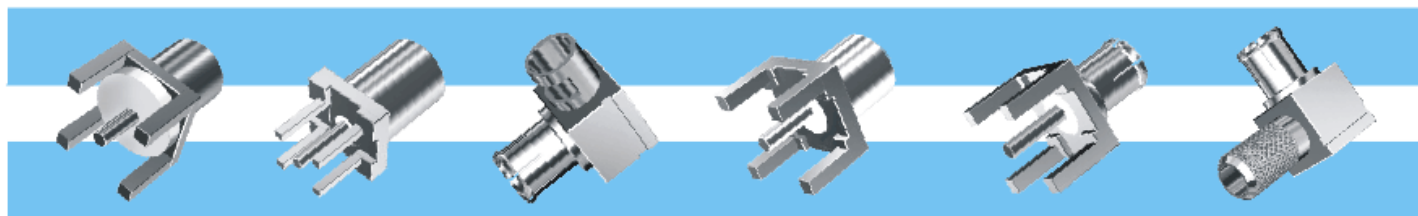
MMCX2112003	MMCX-JW2A	2/50S	A= 1.0, B=2.0
MMCX2112004	MMCX-JW3A	3/50S	A= 1.6, B=2.6

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Technical drawing of a bolt with the following dimensions: M3,5x0,35, SW 4,5, 2,5, 8,4, and 5,2.

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The MCX (OSX) series are snap-on coupling micro-miniature coaxial connectors which are developed according to the specifications Of CECC 22220. With the 30% smaller size than SMB connectors, they are sure to fit most applications where space, weight, performance and ease of assembly are required in RF circuits of communication instruments.

TECHNICAL CHARACTERISTICS

Environmental

Temperature range	-65 ~ +155 ° C
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Electrical

Characteristic impedance	50Ω, 75Ω
Frequency range	0-6GHz (50Ω), 0-1.5GHz (75Ω)
Dielectric Withstanding voltage	750V
Contact resistance	Center conductor: ≤ 5mΩ, Outer conductor: ≤ 2.5mΩ
Insulation resistance	≥ 1000MΩ
VSWR GHz	≤ 1.20 (50Ω), ≤ 1.35 (75Ω)

Material and Plating

Body	Brass, gold/nickel plated
Spring contacts	Beryllium copper, gold plated
Male center contacts	Brass, gold plated
Female center contacts	Beryllium copper, gold plated
Insulators	PTFE
Crimp ferrules	Copper alloy, gold or nickel plated

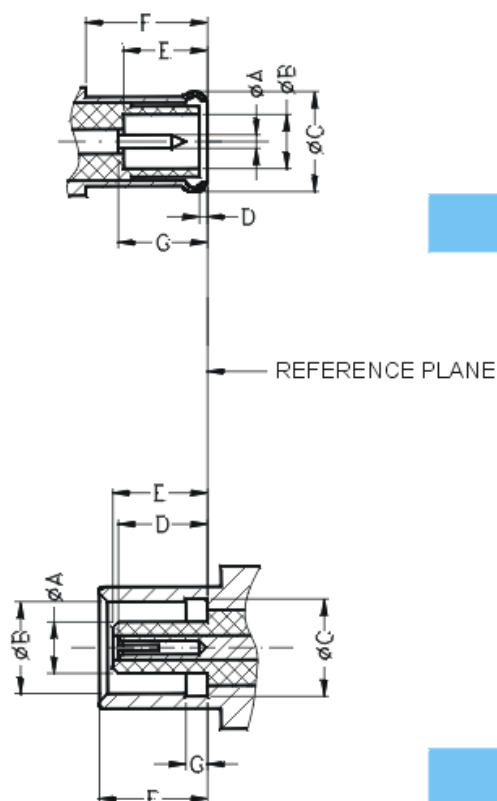
Mechanical

Durability	500 cycles
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INTERFACE MATING DIMENSIONS

Letter	PLUG(mm)	
	Minimum	Maximum
A	0.48	0.53
B	2.00	2.07
C	3.66	3.76
D	0.00	0.30
E	2.81	3.20
F	4.15	-
G	2.81	3.20

Letter	JACK(mm)	
	Minimum	Maximum
A	1.80	1.97
B	3.43	3.48
C	3.61	3.75
D	2.31	2.79
E	2.61	2.79
F	4.00	4.12
G	0.75	0.85

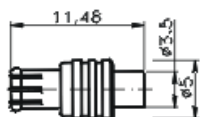


PLUG

JACK

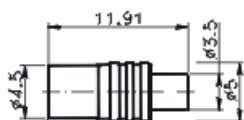
1. SEMI-RIGID, SEMI-FLEXIBLE CABLE CONNECTORS

Straight Cable Jack, Solder



Part Number	GB Type	Cable Group	Remarks
MCX1111001	MCX-JB2	.085	

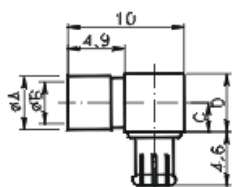
Straight Cable Plug, Solder



MCX1211001	MCX-KB2	.085	
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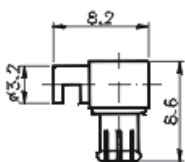
1. SEMI-RIGID, SEMI-FLEXIBLE CABLE CONNECTORS

Right Angle Cable Jack, Solder



Part Number	GB Type	Cable Group	Remarks
MCX2111001	MCX-JWB2	.085	A=3.6,B=2.2,C=2.0,D=4.0
MCX2111002	MCX-JWB3	.141	A=4.6,B=3.6,C=2.5,D=5.0

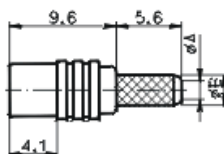
Right Angle Cable Jack, Solder



MCX2111003	MCX-JW3H	.085	
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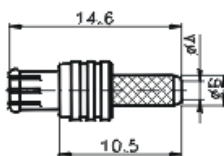
2. FLEXIBLE CABLE CONNECTORS

Straight Cable Plug, Crimp



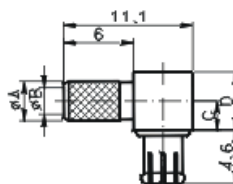
MCX1212001	MCX-(E)K2.5	2.6/50S	A=1.6, B=2.3
MCX1212002	MCX-(E)K2.5D	2.6/50D	A=1.6, B=2.6
MCX1212003	MCX-(E)K3	3/50S	A=1.6, B=2.6

Straight Cable Jack, Crimp



MCX1112001	MCX-J2	2/50S	A=1.0, B=2.0
MCX1112003	MCX-(E)J2.5	2.6/50S	A=1.6, B=2.3
MCX1112004	MCX-(E)J2.5D	2.6/50D	A=1.6, B=2.6
MCX1112002	MCX-J3	3/50S	A=1.6, B=2.6
MCX1112005	MCX-(E)J5	5/50S	A=3.1, B=4.4

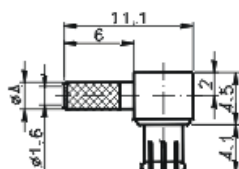
Right Angle Cable Jack, Crimp



MCX2112001	MCX-JW2	2/50S	A=2.0,B=1.0,C=2.0,D=4.0
MCX2112002	MCX-JW3	3/50S	A=2.6,B=1.6,C=2.0,D=4.0
MCX2112003	MCX-JW4	4/50S	A=3.4,B=2.3,C=2.5,D=5.0
MCX2112004	MCX-JW5	5/50S	A=4.4,B=3.1,C=2.5,D=5.0

2. FLEXIBLE CABLE CONNECTORS

Right Angle Cable Jack, Crimp

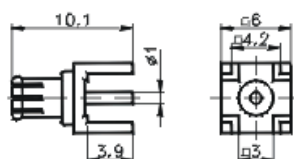


Part Number	GB Type	Cable Group	Remarks
MCX2112005	MCX-(E)JW2.5	2.6/50S	A=2.3
MCX2112006	MCX-(E)JW2.5D	2.6/50D	A=2.6

MCX
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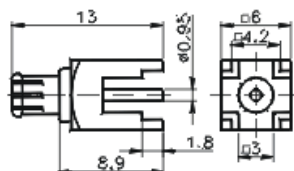
3. PCB MOUNT RECEPTACLES

Straight Jack Receptacle



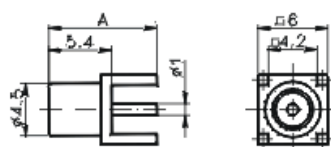
Part Number	GB Type	Remarks
MCX1115001	MCX-JHD	

Straight Jack Receptacle



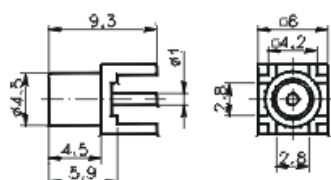
MCX1115002	MCX-(E)JHD	
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Straight Plug Receptacle



MCX1215001	MCX-KHD	A=9.3
MCX1215002	MCX-KHD1	A=8.3
MCX1215003	MCX-KHD2	A=7.1

Straight Plug Receptacle



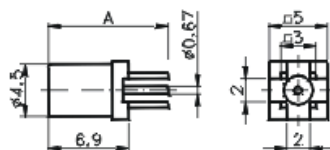
MCX1215004	MCX-KHD3	
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3. PCB MOUNT RECEPTACLES

Straight Plug Receptacle

MCX

5



Part
Number

GB
Type

Remarks

MCX1215005

MCX-KHD4

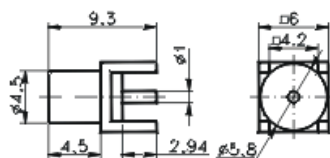
A=10.3

MCX1215007

MCX-KHD6

A=9.9

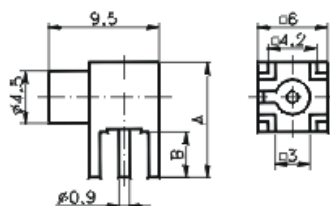
Straight Plug Receptacle



MCX1215006

MCX-KHD5

Right Angle Plug Receptacle



MCX2215001

MCX-KWHD1

A=9.93, B=3.94

MCX2215002

MCX-KWHD2

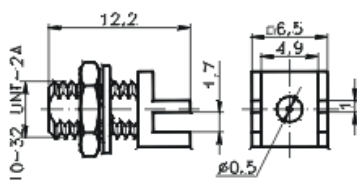
A=7.72, B=1.73

MCX2215003

MCX-KWHD3

A=8.92, B=2.92

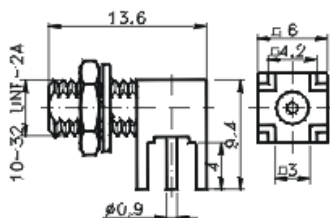
Straight Bulkhead Plug Receptacle



MCX1235001

MCX-(E)KYHD

Right Angle Bulkhead Plug Receptacle



MCX2235001

MCX-(E)KYWHD

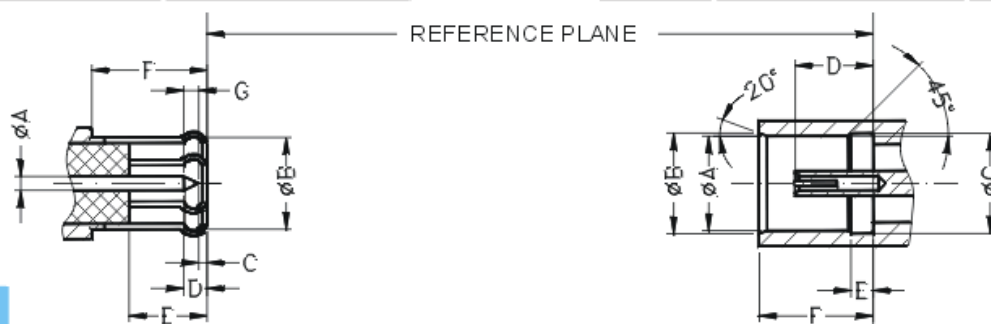
INTERFACE MATING DIMENSIONS

Letter	PLUG(mm)	
	Minimum	Maximum
A	0.48	0.53
B	-	3.43
C	0.15	-
D	-	1.19
E	2.79	-
F	4.14	-
G	0.25	-

Letter	JACK(mm)	
	Minimum	Maximum
A	3.42	3.48
B	3.81	-
C	3.60	3.76
D	-	2.80
E	0.75	0.85
F	-	4.11

MCX

5

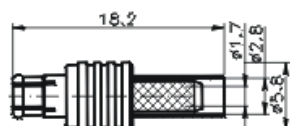


JACK

PLUG

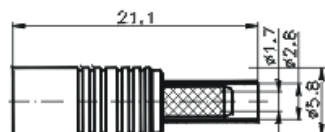
1. FLEXIBLE CABLE CONNECTORS

Straight Cable Jack, Crimp



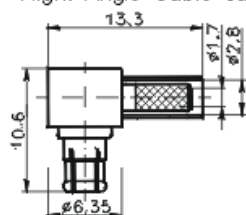
Part Number	GB Type	Cable Group	Remarks
MCXQ1112001	MCX-75J2.5	2.6/75S	

Straight Cable Plug, Crimp



MCXQ1212001	MCX-75K2.5	2.6/75S	
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Right Angle Cable Jack, Crimp



MCXQ2112001	MCX-75JW2.5	2.6/75S	
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DIMENSIONS OF APPLICABLE CABLES

DIMENSION TABLE FOR TYPICAL APPLICABLE COAXIAL CABLES

The following tables are presented as a convenient reference for customer only. For detailed specifications, refer to the relevant standard or cable manufacturer's specifications. All dimensions are nominal or specified values. S:1 braid;D:2 braid;*:Armoured

CABLE TYPE	IMP. Ω	DIAMETER (mm)					CABLE GROUP
		CORE		DIELECTRIC	MAX SCREEN	JACKET	
		Composition	Nom. Dia				
FLEXIBLE AND SEM-RIGID CABLES (MIL-C-17-F)							
RG-5A/U	50	single core	1.29	4.60	6.30D	8.33	8/50D
RG-6A/U	75	single core	0.72	4.70	6.30D	8.43	8/75D
RG-8/U	52	7X0.72	2.17	7.24	8.20S	10.29	10/50S
RG-9/U	51	7X0.72	2.17	7.11	8.70D	10.67	11/50D
RG-10/U	52	7X0.72	2.17	7.24	8.20S	12.07*	10/50S
RG-11/U	75	7X0.4	1.21	7.24	8.20S	10.29	10/75S
RG-12/U	75	7X0.4	1.21	7.24	8.20S	12.07*	10/75S
RG-21/U	53	single core	1.29	4.70	6.30D	8.43	8/75D
RG-55/U	53.5	single core	0.81	2.95	4.20D	5.23	5/50D
RG-58/U	53.5	single core	0.81	2.95	3.60S	4.95	5/50S
RG-59B/U	75	single core	0.58	3.71	4.85S	6.15	6/75S
RG-140/U	75	single core	0.64	3.71	4.47S	5.92	6/75S
RG-141A/U	50	single core	0.99	2.95	3.71S	4.83	5/75S
RG-142B/U	50	single core	0.99	2.95	4.34D	4.95	5/50D
RG-144/U	75	7X0.45	1.35	7.25	8.38S	10.40	10/75S
RG-165/U	50	7X0.8	2.40	7.25	8.64S	10.40	10/50S
RG-174/U	50	7X0.16	0.48	1.52	2.24S	2.54	2.6/50S
RG-178/U	50	7X0.1	0.30	0.91	1.37S	2.01	2/50S
RG-179B/U	75	7X0.1	0.30	1.60	2.13S	2.54	2.6/75S
RG-187/U	75	7X0.1	0.30	1.52	2.13S	2.79	2.6/75S
RG-188/U	50	7X0.18	0.51	1.52	2.06S	2.79	2.6/50S
RG-196/U	50	7X0.1	0.30	0.86	1.37S	2.03	2/50S
RG-212/U	50	single core	1.44	4.70	6.30D	8.43	8/50D
RG-213/U	50	7X0.75	2.26	7.25	8.64S	10.29	10/50S
RG-214/U	50	7X0.75	2.26	7.25	9.14D	10.80	11/50D
RG-215/U	50	7X0.75	2.26	7.25	8.64S	12.07*	10/50S
RG-216/U	75	7X0.40	1.20	7.25	9.14D	10.90	11/75D
RG-222/U	50	single core	1.41	4.70	6.30D	8.43	8/50D
RG-223/U	50	single core	0.89	2.95	4.47D	5.49	5/50D
RG-225/U	50	7X0.79	2.38	7.24	9.14D	10.92	11/50D
RG-303/U	50	single core	0.99	2.95	3.71S	4.32	4/50S
RG-316/U	50	7X0.17	0.51	1.52	2.06S	2.59	2.6/50S
RG-316DT	50	7X0.17	0.51	1.60	2.22D	2.80	2.6/50D
RG-400/U	50	19X0.18	0.99	2.95	4.34D	4.95	5/50D
RG-401/U	50	single core	1.64	5.46	-	6.35	.250
RG-402/U	50	single core	0.91	3.02	-	3.58	.141
RG-405/U	50	single core	0.51	1.68	-	2.18	.085
FLEXIBLE AND SEMI-RIGID CABLES (SJ1132-77,SJ498-83, made in China)							
SYV-50-1	50	7X0.1	0.27	0.87 ± 0.05	1.40S	1.9 ± 0.10	2/50S
SYV-50-2-1	50	7X0.16	0.45	1.5 ± 0.10	2.10S	2.9 ± 0.10	3/50S
SYV-50-2-2	50	7X0.18	0.68	2.2 ± 0.10	3.10S	4.0 ± 0.20	4/50S
SYV-50-3	50	single core	0.90	3.0 ± 0.15	3.85S	5.0 ± 0.25	5/50S
SYV-50-5-1	50	single core	1.37	4.6 ± 0.20	5.50S	7.0 ± 0.30	7/50S
SYV-50-5-2	50	single core	1.37	4.6 ± 0.20	6.20D	7.8 ± 0.30	8/50D
SYV-50-7-1	50	7X0.75	2.28	7.3 ± 0.25	8.50S	10.2 ± 0.30	10/50S
SYV-50-7-2	50	7X0.75	2.28	7.3 ± 0.25	9.30D	11.2 ± 0.30	11/50D
SYV-75-2	75	7X0.08	0.24	1.5 ± 0.10	2.10S	2.9 ± 0.10	3/75S

DIMENSIONS OF APPLICABLE CABLES

DIMENSION TABLE FOR TYPICAL APPLICABLE COAXIAL CABLES

CABLE TYPE	IMP. Ω	DIAMETER (mm)					CABLE GROUP
		CORE		DIELECTRIC	MAX SCREEN	JACKET	
		Composition	Nom. Dia				
FLEXIBLE AND SEM-RIGID CABLES (SJ1132-77,SJ498-83, made in China)							
SYV-75-2-1	75	7X0.11	0.32	2.0		4.0	4/75S
SYV-75-3	75	7X0.17	0.51	2.95±0.10	3.85S	5.0±0.25	5/75S
SYV-75-5	75	single core	0.75	4.60±0.20	5.50S	7.1±0.30	7/75S
SYV-75-7	75	7X0.4	1.20	7.25±0.25	8.50S	10.2±0.30	10/75S
SFF-50-1	50	7X0.10	0.30	0.87±0.10	1.45S	1.8±0.15	2/75S
SFF-50-1.5-1	50	7X0.18	0.54	1.5±0.10	2.10S	2.55±0.15	2.6/50S
SFF-50-1.5-2	50	7X0.18	0.54	1.5	2.70D	3.20	3/50D
SFF-50-2-1	50	single core	0.73	2.2		3.3±0.20	4/50S
SFF-50-2-2	50	single core	0.73	2.2		4.0	4/50D
SFF-50-3-1	50	single core	0.93	3.0		4.5±0.25	5/50S
SFF-50-3-2	50	single core	0.93	3.0		5.5	5/50D
SFF-75-1	75	single core	0.17	0.87		1.80	2/75S
SFF-75-1.5-1	75	7X0.10	0.30	1.5		2.55	2.6/75S
SFF-75-1.5-2	75	7X0.10	0.30	1.5		3.2	3/75D
SFF-75-2	75	single core	0.41	2.2		3.2	3/75S
SFF-75-3-1	75	single core	0.55	3.0		4.5	5/75S
SFF-75-3-2	75	single core	0.55	3.0		5.5	5/75D
SFT-50-2-1	50	single core	0.51	1.67	-	2.18	.085
SFT-50-3-1	50	single core	0.93	3.0	-	3.58	.141
SFT-50-5.2	50	single core	1.60	5.20	-	6.0	.250
LMR CABLES (TIMES MCROWAVE SYSTEMS)							
RD-178	50	7X0.10	0.30	0.86	1.68D	2.34	2/50D
RD-179	75	7X0.10	0.30	1.60	2.69D	3.07	2.6/75D
RD-302	75	single core	0.64	3.71		5.64	5/75D
RD-316	50	7X0.17	0.51	1.52	2.22D	2.90	2.6/50D
LMR-100A	50	single core	0.46	1.52	2.11	2.79	2.6/50S
LMR-195	50	single core	0.94	2.79	3.53	4.95	5/50S
LMR-200	50	single core	1.12	2.95	3.66	4.95	
LMR-240	50	single core	1.42	3.81	4.52	6.10	
LMR-300	50	single core	1.78	4.83	5.72	7.62	
LMR-400	50	single core	2.74	7.24	8.13	10.29	
CORRUGATED CABLES 50Ω(MANUFACTURER)							
SYFY-50-9-3 (TIANJING 609)			3.1	8.7	9.5	11.2	3/8"annulated
SYFY-50-12-3(TIANJING 609)			4.9	12.0	14.0	16.5	1/2"annulated
SYFY-50-9-3 (TIANJING 609)			9.1	22.0	25.0	28.5	7/8"annulated
LDF1-50 (HELIAX ANDREW)			2.6		7.7	8.8	1/4"annulated
LDF2-50 (HELIAX ANDREW)			3.1		9.7	11.2	3/8"annulated
LDF4-50A (HELIAX ANDREW)			4.6		14.0	15.9	1/2"annulated
LDF5-50A (HELIAX ANDREW)			9.0	23.0	24.9	28.0	7/8"annulated
SUCOFEEED 1/2" (HUBER SUHNER)			4.8	11.9	13.7	16.0	1/2"annulated
SUCOFEEED 7/8" (HUBER SUHNER)			9.0	22.0	24.7	27.75	7/8"annulated
CORRUGATED CABLES 50Ω(MANUFACTURER)							
SDY-50-7-3 (TIANJING 609)			2.83			10.2	3/8" spiral
SDY-50-9-3 (TIANJING 609)			3.5			12.4	
FSJ1-50A (HELIAX ANDREW)			1.9	4.7	6.4	7.4	1/4" spiral
FSJ2-50 (HELIAX ANDREW)			2.8	7.0	9.5	10.5	3/8" spiral
FSJ4-50B (HELIAX ANDREW)			3.6	8.7	12.2	13.2	1/2" spiral
SUCOFEEED 1/4" HF-FR (HUBER SUHNER)			1.89	4.7	6.4	7.7	1/4" spiral
SUCOFEEED 3/8" HF-FR (HUBER SUHNER)			2.8	7.0	9.5	10.8	3/8" spiral
SUCOFEEED 1/2" HF-FR (HUBER SUHNER)			3.6	8.6	12.1	13.4	1/2" spiral

Cable Group	Typical Applicable Coaxial Cables
2/50 S	SFF-50-1, SYV-50-1; RG-178/U, 196/U
2/50 D	RD-178
2.6/50 S	SFF-50-1.5-1; RG-174/U, 188/U, 316/U; LMR-100A
2.6/50 D	RG-316DT, RD-316
3/50 S	SYV-50-2-1
3/50 D	SFF-50-1.5-2
4/50 S	SFF-50-2-1, SYV-50-2-2; RG-303/U
4/50 D	SFF-50-2-2
5/50 S	SFF-50-3-1, SYV-50-3; RG-58/U, 141A/U, 303/U; LMR-195
5/50 D	SFF-50-3-2; RG-55/U, 142B/U, 223/U, 400/U
7/50 S	SYV-50-5-1
8/50 D	SYV-50-5-2; RG-5A/U, RG-21/U, RG-212/U, RG-222/U
10/50 S	SYV-50-7-1; RG-8/U, 10/U, 165/U, 213/U, 215/U
11/50 D	SYV-50-7-2; RG-9/U, 214/U, 225/U
.085	SFT-50-2-1; RG-405/U
.141	SFT-50-3-1; RG-402/U
.250	SFT-50-5.2; RG-401/U
2/75 S	SFF-75-1
2.6/75 S	SFF-75-1.5-1; SYFV-75-2-1; RG-179B/U, 187/U
2.6/75 D	RD-179
3/75 S	SYV-75-2, SFF-75-2
3/75 D	SFF-75-1.5-2
4/75 S	SYV-75-2-1
4/75 D	SYV-75-2-2
5/75 S	SFF-75-3-1, SYV-75-3
5/75 D	SFF-75-3-2; RD-302
6/75 S	RG-59B/U, 140/U, 210/U
7/75 S	SYV-75-5
8/75 D	RG-6A/U
10/75 S	SYV-75-7; RG-11/U, 12/U, 144/U
11/75 D	RG-216/U
1/4"annulated	Heliac LDF1-50
3/8"annulated	SYFY-50-9-3; Heliac LDF2-50
1/2"annulated	SYFY-50-12-3; Heliac LDF4-50A; Sucofeed 1/2"
5/8"annulated	Heliac HJ4.5-50
7/8"annulated	SYFY-50-12-3; Heliac LDF5-50A; Sucofeed 7/8"
1/4"spiral	Heliac FSJ1-50A; Sucofeed 1/4"HF-FR
3/8"spiral	SDY-50-7-3; Heliac FSJ2-50; Sucofeed 3/8"HF-FR
1/2"spiral	Heliac FSJ4-50B; Sucofeed 1/2"HF

The designation method of cable group:

The number before " / " indicates the outer diameter range of cable jacket; The number behind " / " shows the impedance of cable; " S " indicates single shielded; " D " means double shielded; The " annulated " shows outer conductor of cable is made of corrugate copper tube, the insulating layer is made of foam dielectric; The " spiral " indicates outer conductor of cable is made of spiral copper tube, the insulation layer is made of air-spiral or star support.

If the type of cable selected by customer is not in these tables, can choose a corresponding cable group depend on the structure parameter of cable.