

H-C

HERMERC'S



Measurement

Cable Assembly

About Hermercs



Based on material as the ferrite and ceramics, Hermercs developed a product chain from components to sub systems and integrated systems, which widely recognized from Satcom, Microwave, Test and Measurements and applications.

After decade of focusing on the dedicated category, Hermercs win a reputation within the industry from some global leading companies and also by conducting the modern management systems as the ISO9001/ISO14001, cloud manufacturing, Hermercs brings cutting-edge technology to provide innovative solutions as the reliable open partner for cooperation. All Hermercs commercial parts comply with the RoHS and Reach requirements. Hermercs keeps big investment for design and research, from basic materials to applications, and holds many patents and IPR from materials to components to systems, from hardware to software.

For Satcom industry, Hermercs is very proud to offer the solution from ground station to aerospace parts and from components to testing systems as the combining networks, switching networks and double ridge waveguide networks. For microwave communication industry, we are more focusing on the mobile backhaul market, from longhaul to shorthaul and smallcell applications.



For the testing and measurements industry, Hermercs developed the product line up to 110GHz as the calibration kits, testing accessories and general/customized testing systems, and for future vision, all general systems are cloud based. for the filter industry and also, some absorbers for the waveguide components applications.

Hermercs

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P/N: EOCA1-1-2020-180600

FEATURES

- ❖ Good shielding
- ❖ Low Passive Intermodulation
- ❖ Steady Insertion Loss
- ❖ Test and measurement applications
- ❖ Stainless steel armor sheath

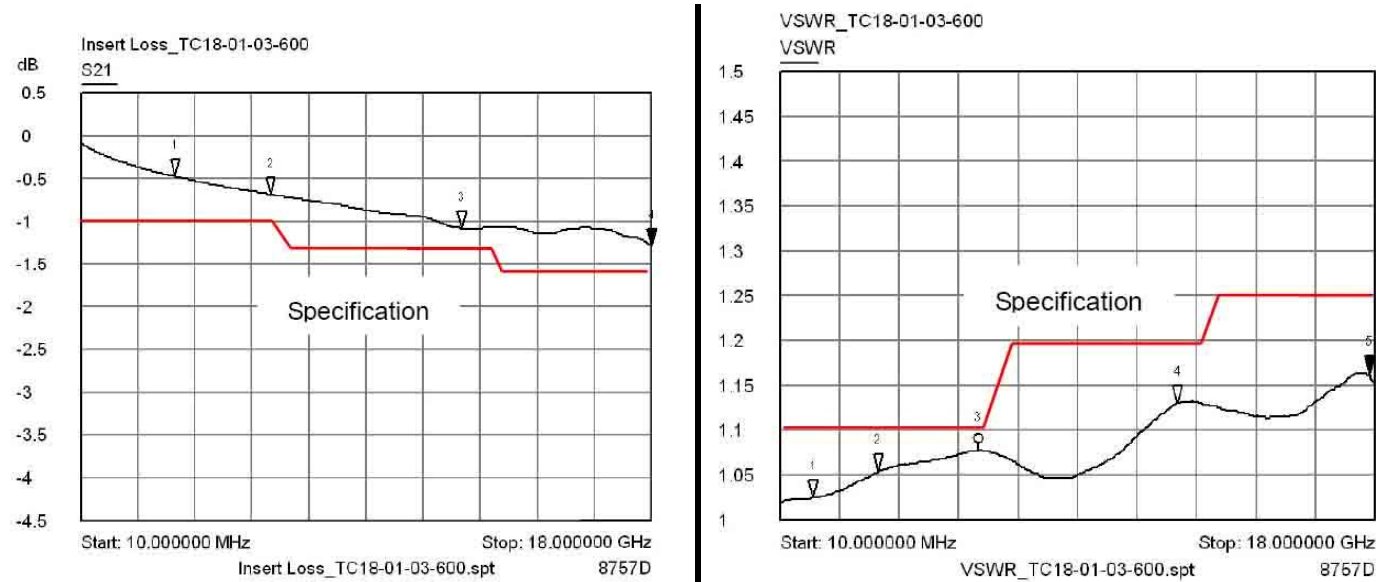


SPECIFICATIONS

Frequency Range	Insertion Loss			VSWR		
	DC-6GHz	6-13GHz	13-18GHz	DC-6GHz	6-13GHz	13-18GHz
DC-18GHz	1.0dB	1.3dB	1.6dB	1.10	1.2	1.25

Note 1. EOCA1-1-2020-180600 0600 means the length of cable,it is 600mm.

TYPICAL PLOT



Economy Cable Assembly Specifications

Model Number	Frequency Range	Nominal Impedance	Insertion Loss	Input VSWR
EOCA1-1-2020-031000	DC-3GHz	50Ω	<1.0dB/m	<1.25dB
EOCA1-1-1010-031000	DC-3GHz	50Ω	<1.0dB/m	<1.25dB
EOCA1-1-6060-031000	DC-3GHz	50Ω	<1.0dB/m	<1.25dB
EOCA1-1-5050-031000	DC-3GHz	50Ω	<1.0dB/m	<1.25dB
EOCA1-2-2020-031000	DC-3GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-1010-031000	DC-3GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-6060-031000	DC-3GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-5050-031000	DC-3GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-2020-061000	DC-6GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-1010-061000	DC-6GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-6060-061000	DC-6GHz	50Ω	<0.6dB/m	<1.20dB
EOCA1-2-5050-061000	DC-6GHz	50Ω	<0.6dB/m	<1.20dB
EOCA2-1-2020-131000	DC-13GHz	50Ω	2dB@13GHz(0.7dB@6GHz)	1.35@13GHz(1.08@6GHz)
EOCA2-1-1010-131000	DC-13GHz	50Ω	2dB@13GHz(0.7dB@6GHz)	1.35@13GHz(1.08@6GHz)
EOCA2-1-5050-131000	DC-13GHz	50Ω	2dB@13GHz(0.7dB@6GHz)	1.35@13GHz(1.08@6GHz)
EOCA2-1-2020-181000	DC-18GHz	50Ω	<0.6dB/m	<1.20dB
EOCA2-1-1010-181000	DC-18GHz	50Ω	<0.6dB/m	<1.20dB
EOCA2-1-5050-181000	DC-18GHz	50Ω	<0.6dB/m	<1.20dB

FEATURES

- ❖ Reduced cable attenuation over operating frequency range
- ❖ Increased power handling
- ❖ Increased electrical length stability over wide temperature range
- ❖ Reduced cable attenuation at high frequencies up to 33%
- ❖ Accepts standard connectors, increasing cost effectiveness
- ❖ Increased mechanical stability over wide temperature range ...stable during exposure to soldering temperatures
- ❖ Reduced cable attenuation at high frequencies up to 18%



SPECIFICATIONS

P/N	EOMG1-1-9595-400160	EOMG1-1-9595-400260	EOMG1-1-9595-270360	EOMG1-1-9595-200460
Diameter(in/mm)	0.086/2.18	0.116/2.95	0.141/3.58	0.250/6.35
Operating Frequency(Max,GHz)	40	40	26.5	20
Cutoff Frequency(GHz)	82.5	46	36	21
Attenuation-Nominal@2GHz (dB/ft)	0.270	0.170	0.200	0.072
Attenuation-Nominal@10GHz (dB/ft)	0.61	0.39	0.28	0.17
Attenuation-Nominal@18GHz (dB/ft)	0.84	0.54	0.38	0.24
Avg. Power Handling (watts@1GHz)	197	401	610	1514
Phase vs.Temp Stability(ppm,nominal)	600	980	560	870
Min Bend Radius(centerline,mechanical)(in/mm),static	0.250/6.35	0.375/9.53	0.437/11.10	0.750/19.05
Weight (grams/ft/m)	6.72/22.05	10.09/33.10	12.50/41.01	41.58/136.42
Velocity of Propagation(%,nominal)	82.5	78.0	81.0	80.0
Temperature Range (°C)	-55~+200	-65~+200	-65~+200	65~+200

P/N	EOMS1-1-9595-400160	EOMS1-1-9595-270260
Diameter(in/mm)	0.086/2.18	0.141/3.58
Operating Frequency(Max,GHz)	40	26.5
Cutoff Frequency(GHz)	75	38
Attenuation-Nominal@2GHz (dB/ft)	0.27	0.15
Attenuation-Nominal@10GHz (dB/ft)	0.61	0.34
Attenuation-Nominal@18GHz (dB/ft)	0.83	0.46
Avg. Power Handling (watts@1GHz)	205	523
Phase vs.Temp Stability(ppm,nominal)	835	2100
Min Bend Radius(centerline,mechanical)(in/mm),static	0.250/6.35	0.320/8.13
Weight (grams/ft/m)	6.95/22.80	14.80/48.56
Velocity of Propagation(%,nominal)	78.0	74.0
Temperature Range (°C)	-65~+200	-65~+200

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FEATURES

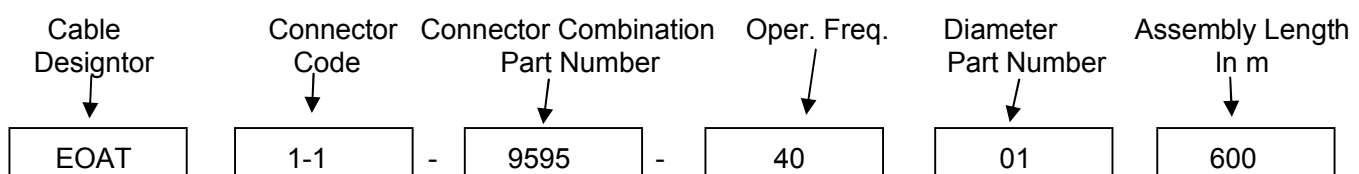
- ❖ Calibration accuracy is maintained
- ❖ Easy to use
- ❖ Longer life
- ❖ Ideal for comparative measurements
- ❖ Reduces down time
- ❖ Phase and amplitude stable with flex
- ❖ Crush&kink resistant armoring and ruggedizing options
- ❖ Phase matching options
- ❖ Off-the-shelf standard assemblies



SPECIFICATIONS

P/N	EOAT1-1-9595-4001600	EOAT1-1-3030-2702600
Diameter(in/mm)	0.150/3.81	0.200/5.08
Operating Frequency(Max,GHz)	40	26.5
Phase Matching	Available	Available
Phase Stability vs.Flex,typ(degree@max frequency)	±3	±3
Amplitude Stability vs. Flex,typ(dB@max frequency)	0.060	0.040
Attenuation,nominal (dB/ft@max frequency)	0.92	0.59
Shielding Effectiveness,Minimum (dB@1GHz)	>-100	>-100
Typical VSWR(2 straight connectors)	1.15:1@18GHz	1.15:1@18GHz
	1.30:1@40GHz	1.25:1@26.5GHZ
Min Bend Radius(in/mm) Static	1/25.4	1/25.4
Weight (grams/ft/m)	1150/37.73	20.00/65.62
Temperature Range (°C)	-54~+150	-54~+150

Part Number Designation



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Phase Stable Flexible Cable Assembly



Connector Code

	Straight Plug	Straight Jack	Ruggedized Test Port Connector	Right-Angle Plug
Straight Plug	1-1	1-2	13	1-4
Straight Jack	2-1	2-2	23	2-4
Ruggedized Test Port Connector	13	23	-	43
Right-Angle Plug	4-1	4-2	43	4-4

Note:1.Other connector styles available.

2.Example: Ruggedized Test Port Connector Straight Plug to Straight Jack,the connector code is 13-2.

Connector Combination Part Number

	2.4mm	2.9mm	3.5mm	7mm	SMA	N	TNC
2.4mm	9595	9580					
2.9mm	8095	8080					
3.5mm			3030	3070	3010	3020	3050
7mm			7030	7070	7010	7020	7050
SMA			1030	1070	1010	1020	1050
N			2030	2070	2010	2020	2050
TNC			5030	5070	5010	5020	5050

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Phase Stable Flexible Cable Assembly



FEATURES

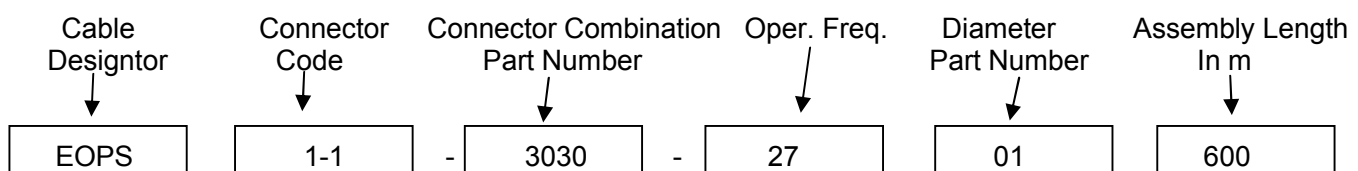
- ❖ Less frequent calibration required due to flatter phase versus temperature profile
- ❖ More precise measurements due to reduced phase shift versus flexure
- ❖ Reduced insertion loss and increased amplitude stability versus flexure
- ❖ Problem hook-ups made easier because of increased cable flexibility
- ❖ Maintains electrical stability over time and handling
- ❖ Increased assembly life due to improved connector retention and assembly durability
- ❖ Increased assembly life in applications where cable assemblies will be handled frequently



SPECIFICATIONS

P/N	EOPS1-1-3030-2701600	EOTB1-1-1010-2702600	EOTB1-1-2020-2703600
Diameter(in/mm)	0.190/4.83	0.420/10.67	0.360/9.14
Operating Frequency(Max,GHz)	26.5	26.5	26.5
Attenuation-Nominal@2GHz (dB/ft)	0.110	0.110	0.110
Attenuation-Nominal@10GHz (dB/ft)	0.260	0.260	0.260
Attenuation-Nominal@18GHz (dB/ft)	0.360	0.360	0.360
Avg. Power Handling in Watts@1GHz	700	700	700
Phase Stability vs.Temperature(ppm,nominal)	500	500	500
Phase Stability vs.Flex.(degree@18GHz,nominal)	3.0	3.0	3.0
Amplitude vs.Flex.(dB@18GHz,nominal)	0.01	0.01	0.01
Shielding Effectiveness,Minimum (dB@1GHz)	-105	-105	-105
Weight (grams/ft/m)	16.65/54.63	16.65/54.63	16.65/54.63
Temperature Range (°C)	-50~+125	-50~+125	-50~+125

Part Number Designation



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Connector Code

	Straight Plug	Straight Jack	Ruggedized Test Port Connector
Straight Plug	1-1	1-2	13
Straight Jack	2-1	2-2	23
Ruggedized Test Port Connector	13	23	-

Note:1.Other connector styles available.

2.Example: Ruggedized Test Port Connector Straight Plug to Straight Jack,the connector code is 13-2.

Connector Combination Part Number

	3.5mm	7mm	SMA	N	TNC
3.5mm	3030	3070	3010	3020	3050
7mm	7030	7070	7010	7020	7050
SMA	1030	1070	1010	1020	1050
N	2030	2070	2010	2020	2050
TNC	5030	5070	5010	5020	5050

FEATURES

- ❖ Improved system performance
- ❖ Less frequent calibration
- ❖ More precise measurements
- ❖ Reduced troubleshooting trying to find leakage sources
- ❖ Increased assembly life
- ❖ Maintains electrical stability over time and handling
- ❖ Increased assembly life



SPECIFICATIONS

P/N	EOPS1-1-3030-2704600	EOTB1-1-1010-2705600	EOTB1-1-2020-2706600
Diameter(in/mm)	0.199/5.05	0.435/11.04	0.349/8.86
Operating Frequency(Max,GHz)	26.5	26.5	26.5
Attenuation-Nominal@2GHz (dB/ft)	0.112	0.112	0.112
Attenuation-Nominal@10GHz (dB/ft)	0.261	0.261	0.261
Attenuation-Nominal@18GHz (dB/ft)	0.360	0.360	0.360
Avg. Power Handling in Watts@1GHz	700	700	700
Phase Stability vs.Temperature(ppm,nominal,°C)	<500 from -55 to +85°	<500 from -55 to +85°	<500 from -55 to +85°
Phase Stability vs.Flex(degree@18GHz,nominal)	1	1	1
Shielding Effectiveness,Minimum (dB@1GHz)	-120	-120	-120
Typical VSWR (2 straight connectors)	1.35@18GHz	1.35@18GHz	1.35@18GHz
	1.40@26.5GHz	1.40@26.5GHz	1.40@26.5GHz
Min Bend Radius (in/mm)	1/25.4 static	1.38/35.05	1/25.4
	2/50.8 dynamic		
Connector Retention up to 18GHz,straight pull(lbs/kg)	40/18.14	40/18.14	40/18.14
Weight (grams/ft)	21	64	39
Velocity of Propagation(%)	82.4	82.4	82.4
Operating Temperature Range (°C)	-55--+125	-55--+125	-55--+125

Note:* <800 up to +125

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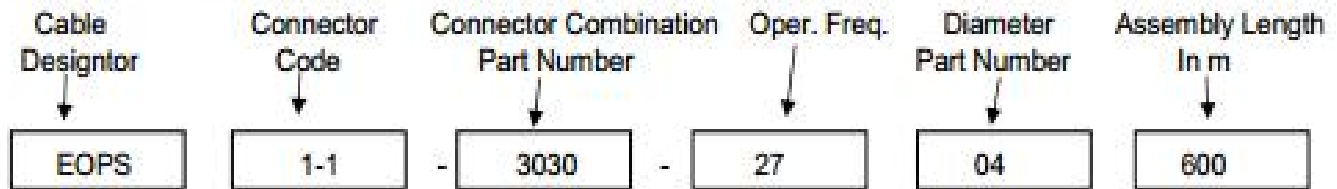
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Phase Stable Flexible Cable Assembly

Part Number Designation



Connector Code

	Straight Plug	Straight Jack	Ruggedized Test Port Connector
Straight Plug	1-1	1-2	13
Straight Jack	2-1	2-2	23
Ruggedized Test Port Connector	13	23	-

Note: 1. Other connector styles available.

2. Example: Ruggedized Test Port Connector Straight Plug to Straight Jack, the connector code is 13-2.

Connector Combination Part Number

	3.5mm	7mm	SMA	N	TNC
3.5mm	3030	3070	3010	3020	3050
7mm	7030	7070	7010	7020	7050
SMA	1030	1070	1010	1020	1050
N	2030	2070	2010	2020	2050
TNC	5030	5070	5010	5020	5050

Miniature Flexible Cable Assembly



FEATURES

- ❖ High compression resistance and greater durability
- ❖ Eliminates cable breakage associated with repeated bending and handling
- ❖ Configured to solve tough packaging challenges
- ❖ Solid PTFE dielectric
- ❖ Ultra-high strength,multilayer outer braid
- ❖ Provides alternatives to 1.19mm,2.18mm,&3.58mm semi-rigid cable-eliminating costs associated with time-consuming cable layout



SPECIFICATIONS

P/N	EOSF1-1-9595-5001600	EOSF1-1-1595-5002600	EOSF1-1-7070-2703600
Diameter(in/mm)	0.055/1.40	0.096/2.44	0.160/4.06
Operating Frequency(Max,GHz)	50.0	50.0	26.5
Attenuation-Nominal@2GHz (dB/ft)	0.59	0.28	0.17
Attenuation-Nominal@10GHz (dB/ft)	1.37	0.68	0.43
Attenuation-Nominal@18GHz (dB/ft)	1.89	0.95	0.61
Shielding Effectiveness (dB,0-18GHz)	-85 or better	-90 or better	-90 or better
Phase Matching	Available(expect Express)	Available(expect Express)	Available(expect Express)
Minimum Centerline Bend Radius(in/mm),static	0.100/2.54	0.187/4.75	0.320/8.13
Connector Retention(lbs/kg min),straight angle pull	10/4.54	10/4.54	40/18.14
Connector Retention(lbs/kg min),right angle pull	5/2.27	10/4.54	15/6.80
Weight (grams/ft/m)	1.54/5.05	5.25/17.22	13.4/43.95
Temperature Range (°C)	-54~+125	-54~+125	-54~+125

Part Number Designation

Cable Designator	Connector Code	Connector Combination Part Number	Oper. Freq.	Diameter Part Number	Assembly Length In m
↓	↓	↓	↓	↓	↓
EOSF	1-1	- 9595	- 50	01	600

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Connector Code

	Straight Plug	Straight Jack	Right-Angle Plug
Straight Plug	1-1	1-2	1-3
Straight Jack	1-2	2-2	2-3
Right-Angle Plug	1-3	2-3	3-3

Note: Other connector styles available.

Connector Combination Part Number

	2.4mm	SMA	SSMA	N
2.4mm	9595	9510	9515	9520
SMA	1095	1010	1015	1020
SSMA	1595	1510	1515	1520
N		2010		2020

Low Loss Flexible Cable Assembly



FEATURES

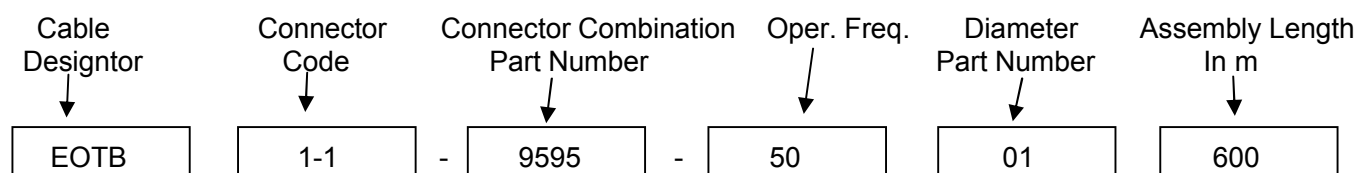
- ❖ Low insertion loss and excellent amplitude stability
- ❖ Less prone to damage during handling and installation
- ❖ Longer cable assembly life due to greater connector retention
- ❖ Laminate construction provides low signal leakage
- ❖ Reduced lead time for configured assemblies
- ❖ Cost-effective, same-day shipment options for standard configurations



SPECIFICATIONS

P/N		EOTB1-1- 9595-5001600	EOTB1-1- 3030-2702600	EOTB1-1- 7070-2003600	EOTB1-1- 1010-1204600
Diameter(plain cable,in/mm)		0.125/3.18	0.205/5.21	0.290/7.37	0.420/10.67
Operating Frequency(Max,GHz)		50.0	26.5	19.8	12.0
Attenuation-Nominal@2GHz (dB/ft)		0.230	0.110	0.078	0.054
Attenuation-Nominal@10GHz (dB/ft)		0.520	0.260	0.190	0.130
Attenuation-Nominal@18GHz (dB/ft)		0.710	0.360	0.260	—
Avg. Power Handling in Watts@1GHz		280	750	1400	1700
Phase Stability vs.Temperature(ppm,nominal)		2800	2100	1600	1500
Phase Stability vs.Flex(degree@18GHz,nominal)		3.50	3.25	4.50	3.50
Amplitude vs.Flexure(dB@18GHz,nominal)		0.01	0.01	0.01	0.01
Minimum Bend Radius(in/mm)	DYNAMIC	1.25/31.75	2.10/53.34	2.90/73.66	4.00/101.60
	STATIC	0.50/12.70	1.00/25.40	1.50/38.10	2.50/63.50
Shielding Effectiveness-Minimum (dB@1GHz)		-90	-90	-90	-90
Weight (grams/ft/m)		8.00/26.25	20.00/65.62	36.00/118.11	85.00/278.87
Temperature Range (°C)		-54~+150	-54~+150	-54~+150	-54~+150

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We highlight values as:

Customer Focused Value Delivered
Growth Synergic Innovation Driven

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