

244813-1M5



CNT-240 CNT® Jumper with interface types N Male and N Female, 1.5 m

Product Classification

Brand	CNT®
Product Series	CNT-240
Product Type	Braided cable assembly

General Specifications

Body Style, Connector A	Straight
Body Style, Connector B	Straight
Interface, Connector A	N Male
Interface, Connector B	N Female
Length	1.500 m 4.921 ft
Nominal Size	0.240 in
Specification Sheet Revision Level	A

Electrical Specifications

DTF, Connector A	-28.00 dB
DTF, Connector B	-21.00 dB

Jumper Assembly Sample Label

The label contains the following information:

- Batch:** 0123456789
- Manufacturing Date (two digit year and week):** US22 1240
- Manufacturing Plant:** US22
- Product Revision:** /A
- Part Number:** F4-DMDM-2M-D
- Serial Number:** 12US220001242

Other text on the label includes: COMMSCOPE® Andrew Solutions™, 2 M (6.562 FT), SUREFLEX ASSEMBLY, U.S. PATENT 5802710, and Product of UNITED STATES.

244813-1M5

Return Loss/VSWR

Frequency Band

0–2100 MHz

Regulatory Compliance/Certifications

Agency

ISO 9001:2015

Classification

Designed, manufactured and/or distributed under this quality management system



Included Products

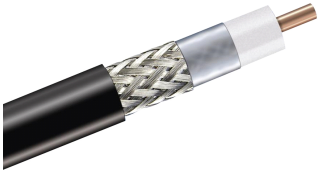
CNT-240 — CNT-240, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket

240PTM-CR — TNC Male for CNT-240 braided cable

240BPNM-C-CR — Type N Male for CNT-240 braided cable

CNT-240

CNT-240, CNT® 50 Ohm Braided Coaxial Cable, black PE jacket



Product Classification

Brand	CNT®
Product Series	CNT-240
Product Type	Braided coaxial cable

Construction Materials

Jacket Color	Black
Jacket Material	Non-halogenated PE
Braid Material	Tinned copper
Shield Tape Material	Aluminum
Dielectric Material	Foam PE
Inner Conductor Material	Copper

Dimensions

Cable Weight	0.05 kg/m
Diameter Over Dielectric	3.810 mm 0.150 in
Diameter Over Jacket	6.100 mm 0.240 in
Diameter Over Tape	3.988 mm 0.157 in
Inner Conductor OD	1.4200 mm 0.0559 in
Nominal Size	0.240 in
Outer Conductor OD	4.520 mm 0.178 in

Electrical Specifications

Cable Impedance	50 ohm
Capacitance	79.8 pF/m 24.4 pF/ft
dc Resistance, Inner Conductor	11.100 ohms/km 3.384 ohms/kft
dc Resistance, Outer Conductor	12.760 ohms/km 3.890 ohms/kft
dc Test Voltage	2500 V
Jacket Spark Test Voltage (rms)	2500 V

CNT-240

Maximum Frequency	31.00 GHz
Operating Frequency Band	30 – 6000 MHz
Peak Power	5.6 kW
Shielding Effectiveness, minimum	90 dB
Velocity	83 %

Environmental Specifications

Installation Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-70 °C to +85 °C (-94 °F to +185 °F)

General Specifications

Cable Type	CNT-240
Braid Coverage	90 %
Packaging Type	Reel

Mechanical Specifications

Bending Moment	0.3 N-m 0.3 ft lb
Flat Plate Crush Strength	0.4 kg/mm 20.0 lb/in
Minimum Bend Radius, Single Bend	19.10 mm 0.75 in
Tensile Strength	36 kg 80 lb

Electrical Performance

Frequency	Attenuation (dB/100 m)	Attenuation (dB/100 ft)
30 MHz	4.90	1.50
50 MHz	6.20	1.90
150 MHz	10.20	3.10
220 MHz	12.50	3.80
450 MHz	17.40	5.30
900 MHz	24.90	7.60
1800 MHz	35.75	10.90
2500 MHz	42.31	12.90
3000 MHz	46.48	14.17
4000 MHz	53.92	16.44
4500 MHz	57.30	17.47
5000 MHz	60.51	18.45
5200 MHz	61.76	18.83
5500 MHz	63.60	19.39
5800 MHz	66.90	20.40
6000 MHz	73.82	22.50

* Values typical, guaranteed within 5%

Regulatory Compliance/Certifications

Agency

RoHS 2011/65/EU
ISO 9001:2015
China RoHS SJ/T 11364-2014

Classification

Compliant
Designed, manufactured and/or distributed under this quality management system
Below Maximum Concentration Value (MCV)



24OPTM-CR

TNC Male for CNT-240 braided cable

Product Classification

Brand	CNT®
Product Type	Braided cable connector

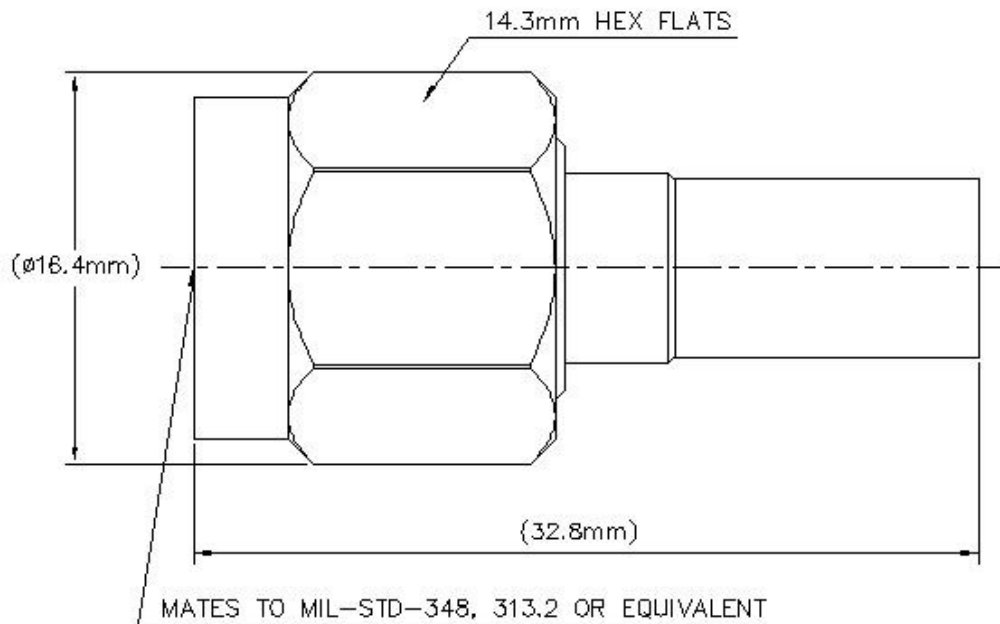
General Specifications

Interface	TNC Male
Body Style	Straight

Electrical Specifications

Operating Frequency Band	0 – 6000 MHz
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	500.00 V
dc Test Voltage	1500 V
Outer Contact Resistance, maximum	0.40 mOhm
Inner Contact Resistance, maximum	1.50 mOhm
Insulation Resistance, minimum	5000 MOhm
Peak Power, maximum	5.00 kW
Insertion Loss, typical	0.05 dB

Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Inner Contact Plating	Silver
Inner Contact Attachment Method	Solder
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-17:9.5
Connector Retention Tensile Force	134 N 30 lbf
Connector Retention Torque	0.23 N-m 0.17 ft lb
Insertion Force	15.00 N 3.37 lbf
Insertion Force Method	IEC 61169-17:9.3.5
Pressurizable	No
Coupling Nut Proof Torque	1.70 N-m 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-17:9.3.6
Coupling Nut Retention Force	445.00 N 100.04 lbf
Coupling Nut Retention Force Method	IEC 61169-17:9.3.11

Dimensions

Nominal Size	0.240 in
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24OPTM-CR

Diameter	16.40 mm 0.65 in
Length	32.80 mm 1.29 in
Weight	18.07 g 0.04 lb
Width	16.80 mm 0.66 in

Environmental Specifications

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65
Mechanical Shock Test Method	IEC 60068-2-27
Climatic Sequence Test Method	IEC 60068-1
Damp Heat Steady State Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Corrosion Test Method	IEC 60068-2-11

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.11	26.00
3000–6000 MHz	1.12	24.90

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)



* Footnotes

Insertion Loss, typical $0.05\sqrt{\text{freq (GHz)}}$ (not applicable for elliptical waveguide)

240BPNM-C-CR



Type N Male for CNT-240 braided cable

Product Classification

Brand	CNT®
Product Type	Braided cable connector

General Specifications

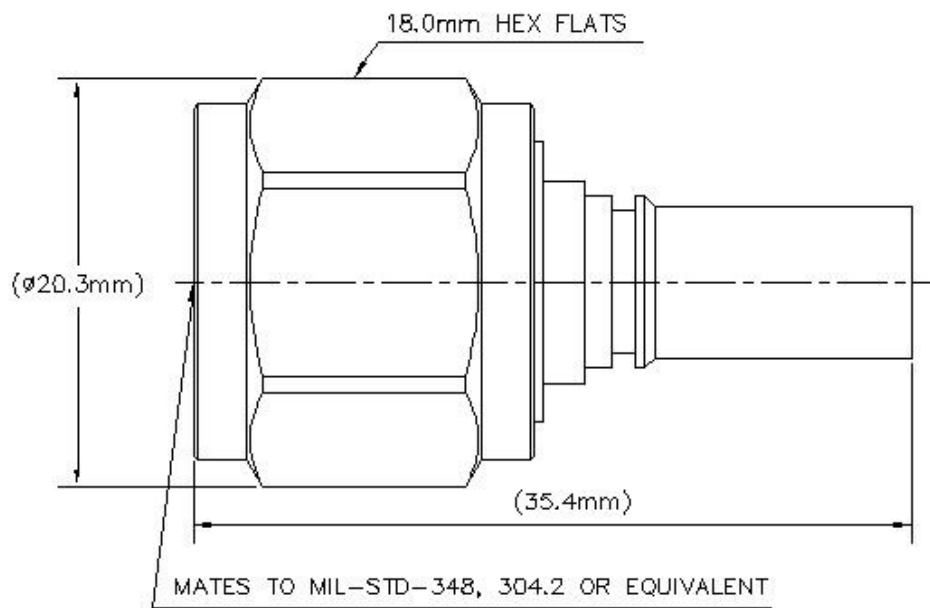
Interface	N Male
Body Style	Straight

Electrical Specifications

Operating Frequency Band	0 – 6000 MHz
Average Power at Frequency	260.0 W @ 900 MHz
Cable Impedance	50 ohm
Connector Impedance	50 ohm
RF Operating Voltage, maximum (vrms)	529.00 V
dc Test Voltage	1500 V
Outer Contact Resistance, maximum	0.25 mOhm
Inner Contact Resistance, maximum	1.00 mOhm
Insulation Resistance, minimum	5000 MOhm
Peak Power, maximum	5.60 kW
Insertion Loss, typical	0.05 dB

240BPNM-C-CR

Outline Drawing



Mechanical Specifications

Outer Contact Attachment Method	Crimp
Outer Contact Plating	Trimetal
Inner Contact Plating	Silver
Inner Contact Attachment Method	Captivated
Interface Durability	500 cycles
Interface Durability Method	IEC 61169-16:9.5
Connector Retention Tensile Force	134 N 30 lbf
Connector Retention Torque	0.23 N-m 0.17 ft lb
Coupling Nut Proof Torque	1.70 N-m 1.25 ft lb
Coupling Nut Proof Torque Method	IEC 61169-16:9.3.6
Coupling Nut Retention Force	450.00 N 101.16 lbf
Coupling Nut Retention Force Method	IEC 61169-16:9.3.11

Dimensions

Nominal Size	0.240 in
Diameter	22.35 mm 0.88 in
Length	44.81 mm 1.76 in
Weight	39.12 g 0.09 lb

240BPNM-C-CR

Width 22.35 mm | 0.88 in

Environmental Specifications

Operating Temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Storage Temperature	-65 °C to +125 °C (-85 °F to +257 °F)
Water Jetting Test Mating	Mated
Water Jetting Test Method	IEC 60529:2001, IP65
Mechanical Shock Test Method	IEC 60068-2-27
Climatic Sequence Test Method	IEC 60068-1
Damp Heat Steady State Test Method	IEC 60068-2-3
Thermal Shock Test Method	IEC 60068-2-14
Vibration Test Method	IEC 60068-2-6
Corrosion Test Method	IEC 60068-2-11

Standard Conditions

Attenuation, Ambient Temperature	20 °C 68 °F
Average Power, Ambient Temperature	40 °C 104 °F
Average Power, Inner Conductor Temperature	100 °C 212 °F

Return Loss/VSWR

Frequency Band	VSWR	Return Loss (dB)
0–3000 MHz	1.08	28.00
3000–6000 MHz	1.22	20.00

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
ISO 9001:2015	Designed, manufactured and/or distributed under this quality management system
China RoHS SJ/T 11364-2014	Above Maximum Concentration Value (MCV)



* Footnotes

Insertion Loss, typical $0.05\sqrt{\text{freq (GHz)}}$ (not applicable for elliptical waveguide)