

CONEXUS

GREEN CONNECTIVITY

FOR THE LONG HAUL

MODULAR SYSTEM BUILD

HIGH TENSILE STRENGTH

THERMALLY STABLE

STABILITY WITH FLEXURE

HIGH CRUSH RESISTANCE

EXTENDED OPERATING LIFE

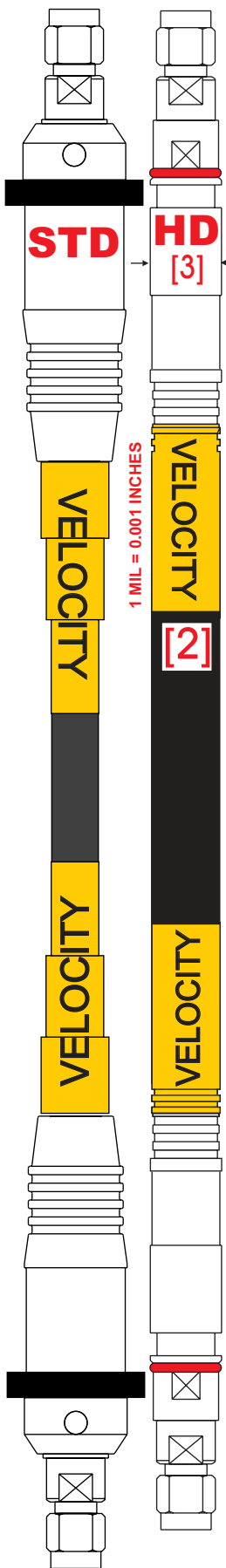
VELOCITY MICROWAVE

SUSTAINABLE¹ SOLUTIONS

in Microwave Design

[1] SUSTAINABLE - MODULAR FEATURES THAT ALLOW PERIODIC REPLENISHMENT IN FACTORY OR FIELD. FOR FULLER DISCUSSION SEE LAST PAGE OF DATA SHEET.

CONEXUS CABLE ASSEMBLY OPTIONS



GP	C1:CONNECTOR 1	GNDR	GRIP	C2:CONNECTOR 2	GNDR	GRIP	COMPLIANT GRIP COMBINATIONS	NOMINAL LENGTH		
	18	M F		18	M F		STD C1/C2	26 IN. (660mm)		
	24	M F		24	M F		STD C1/C2, HD C1/C2	39 IN. (991mm)		
	35	M F		35	M F		STD C1/C2, HD C1/C2, UHD C1/C2	26 IN. (660mm)		
	29	M F		29	M F			39 IN. (991mm)		
	SMA	M F		SMA	M F			48 IN. (1219mm)		
	TYPE N	M F		TYPE N	M F		STD C1/C2	**		
	HYBRIDS							28 IN. (711mm)		
	29NMD F	35NMD F		29	35	N	APC7	M F	39 IN. (991mm)	
	24NMD F			24	29	35	N	APC7	M F	48 IN. (1219mm)
	N-M			SMA	35	[1]	APC7	M F	CUSTOM	

24	2.4mm subminiature	50 Ghz
29	2.92mm subminiature	40 Ghz
SMA	Subminiature with PEI* core	20 Ghz
35	3.5mm subminiature airline core	27 Ghz
N	Type N 7mm connector	18 Ghz
APC7	7mm hermaphroditic connector	18 Ghz

*PEI: Polyetherimide: thermally stable plastic

[A] Assembly shall be serialized at one end or centrally; connectors shall be gaged and capped prior to delivery; calibration including S parameters with data, plus phase and amplitude stability data, shall be reported on printed media as standard or on disk if requested. Cable shall be housed in a PPP-C-795D CLASS 2 enclosure. [B] Cable shall have applied vinyl labels indicating the species of connector per IEEE color code as pictured below. Labels shall be applied to each hand grip. [C] Type N and standard [non-NMD] 2.92mm, 3.5mm and SMA are field replaceable-using proper technique - in STD and UHF assemblies only. This feature does not exist for the other connector species. [D] HD jacket dimensions may vary between about 300 [29HD/35HD/SMAHD] to 425 mils [24HD]. HD grips shall have OD between 425 and 450 mils.

3.5mm
 VELOCITY IEEE287GPC

SMA MIL
 VELOCITY PIN: 2 MILS STD-348 RECESSION TEST

2.92mm IEEE
 VELOCITY PIN: 2 MILS IEEE RECESSION 287GPC

207-204 MILS: F
207-211 MILS: M
 VELOCITY IEEE287GPC **N**

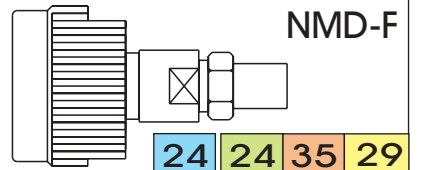
2.4mm IEEE
 VELOCITY PIN: 2 MILS IEEE RECESSION 287GPC

3.5mm IEEE
 VELOCITY PIN: 2 MILS IEEE RECESSION 287GPC

APC7 7mm
 VELOCITY

EXAMPLES: STANDARD: GP-24M-STD-24M-STD-28
 HYBRID: GP-24NMD F-STD-35M-UHD-28

NOTE: NMD-F WILL ONLY MATE TO ANALYZER PORTS OF MALE GENDER. THEY WILL NOT MATE WITH STANDARD MALE CONNECTORS



18M	18F
N-M	N-F
24M	24F
29M	29F
SMAM	SMAF
35M	35F
	APC7 IS A HERMAPHRODITIC CONNECTOR MODE FREE TO 18 Ghz. [1] APC7 MUST BE ORDERED WITH A 24NMD F, 29NMD F, 35NMD F OR TYPE N MALE CONNECTOR ONLY.
7 mm	APC7

[2] O-RING COLORS AND SPECIES, JACKET TEXTURE AND COLORS, LABEL ART & BOOT COLORS ARE NOT SPECIFIED AND MAY VARY ACROSS LOTS.
 [3] HD MAY BE SUBJECT TO LONGER LEAD TIMES. HD IS ONLY AVAILABLE IN SMA, 3.5MM, 2.92MM AND 2.4MM STANDARD BODY [NON-NMD].

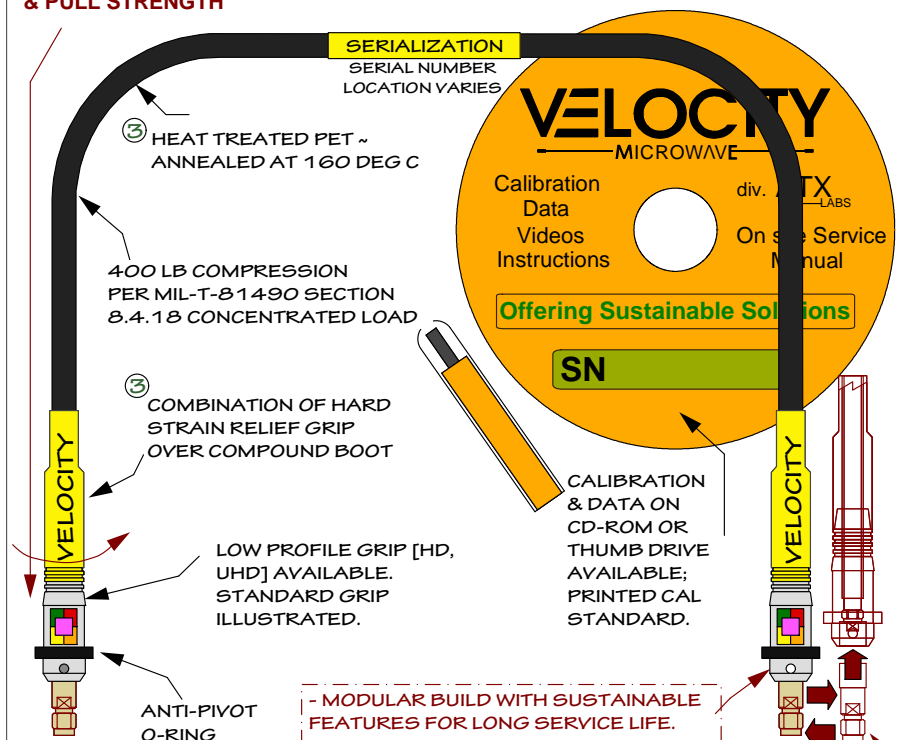
PHASE & AMPLITUDE STABILITY [TYP/MAX] **					SWR / LOSS [LINE ONLY]			ELECTRICAL CHARACTERISTICS & NOTES			
ASSEMBLY	PHASE Δ		AMPLITUDE Δ		MAX f	SWR MAX	dB / ft.	CONNECTOR MATING CYCLES		2000 [SUBMINATURE] *** 5000 [TYPE N, APC7] ***	
1.85mm - 28 ¹	+/-9.20	+/-16.5	+/-0.065	+/-0.12	67 GHZ	1.55	2.15	*** ASSUMES MATING WITH CALIBRATED TORQUE WRENCH, AXIAL ALIGNMENT, AND THE ABSENCE OF ECCENTRICITY UPON THREADED ENGAGEMENT			
1.85mm - 39	+/-9.20	+/-16.5	+/-0.065	+/-0.17							
2.4mm - 28 ¹	+/-6.50	+/-12.0	+/-0.060	+/-0.09	50 GHZ	1.45	1.69	COMPRESSION (SWR IMPAIRMENT WITH RECOVERY)		400 LBS. PER 2 INCH STEPPING PLATE; MIL-T-81490 SEC. 4.7.1.8 CONCENTRATED AXIAL / NORMAL LOAD [1.85mm 800 LBS]	
2.4mm - 39	+/-6.50	+/-12.0	+/-0.065	+/-0.16							
2.9mm - 28	+/-5.50	+/-9.70	+/-0.055	+/-0.09	40 GHZ	1.45	1.46	FLEXURE (CYCLES)		20,000 CYCLES MINIMUM; FLEXURE ENDURANCE PER IEC60966 ~1, SECTION 9.3	
2.9mm - 39	+/-5.50	+/-9.70	+/-0.060	+/-0.16							
3.5mm - 28	+/-3.60	+/-7.20	+/-0.045	+/-0.09	26.5 GHZ	1.45	0.95	SHIELDING EFFECTIVENESS		>95 dB [TO 18 GHZ]	
3.5mm - 39	+/-3.60	+/-7.20	+/-0.055	+/-0.16							
SMA - 28	+/-3.60	+/-7.20	+/-0.040	+/-0.09	20 GHZ	1.40	0.77	PHASE DELTA VS. TEMP		SEE CHART RF POWER	
SMA - 39	+/-3.60	+/-7.20	+/-0.050	+/-0.16							
N APC7 -28	+/-3.00	+/-5.50	+/-0.040	+/-0.09	18 GHZ	1.35	0.62	** PER IEC60966, SECTION 8.6.1 METHODS ONE AND TWO ²			
N APC7 -39	+/-3.20	+/-5.50	+/-0.050	+/-0.16							

[1] CONEXUS 1.85MM AND 2.4MM HAVE DIFFERENT CONSTRUCTION DETAILS FROM THE REST OF THE CONEXUS FAMILY; SEE CONSTRUCTION DETAILS FOR OD VARIATIONS.
 [2] AFTER A PERIOD OF USE, PHASE AND AMPLITUDE VARIATIONS TEND TO STABILIZE AS THE STRESSES INHERENT IN NEWLY MANUFACTURED CABLE ASSEMBLIES DISSIPATE.

RoHS Compliant

HIGH TORSION & PULL STRENGTH

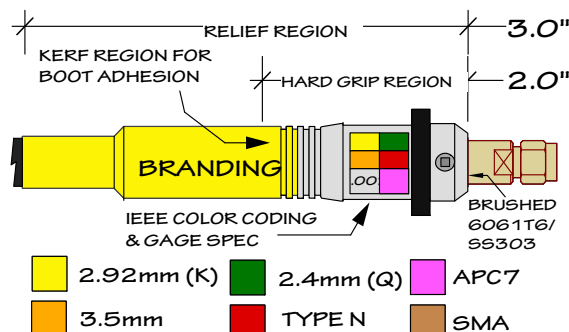
REACH COMPLIANT



[3] COLORS MAY VARY BETWEEN LOTS
 [4] APC7 FACTORY REPLACEABLE ONLY

TYPICAL GEOMETRY & LAYOUT

[SUBMINATURE ILLUSTRATED]



PRECISION STAINLESS CONNECTORS

2000 - 5,000 MATINGS*

MOST HYBRID COMBINATIONS AVAILABLE
 CHECK ORDER TEMPLATE FOR RESTRICTIONS

2.4mm M-NMD	2.4mm F-NMD
2.9mm M-NMD	2.9mm F-NMD
3.5mm M-NMD	3.5mm F-NMD
2.4mm MALE	2.4mm FEMALE
2.9mm MALE	2.9mm FEMALE
3.5mm MALE	3.5mm FEMALE
TYPE N MALE	TYPE N FEMALE
TNC MALE	TNC FEMALE
APC-7	APC-7
SMA MALE	SMA FEMALE

* MATINGS LIFE IS SPECIES DEPENDENT AND IS PREMISED ON THE APPLICATION OF CORRECT TORQUE, AND BEST PRACTICE MATING PROCEDURE FOR MALE AND FEMALE.

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GENERAL SPECIFICATIONS & CONSTRUCTION

CRUSH PROTECTION	COPPER PLATED STEEL HELIX, INTEGRATED
OUTER JACKET	POLYETHYLENE TEREPHTHALATE, ANNEALED
STRAIN RELIEF	303 STAINLESS WITH BOOT AND UNDERLAYMENT.
SOLDER	PB-FREE, ROHS COMPLIANT
CONNECTORS	BODY SS, PASSIVATED; BeCu CONTACT, GOLD PLATE; PEI INSLTR.

CABLE DIAMETER [STD GRIP - NOM]	~0.30 INCHES [8.9mm] MID SPAN
CABLE DIAMETER [HD - CUSTOM]	~0.440 INCHES [11.1mm] MID SPAN
CABLE DIAMETER [1.85, 2.4mm BUILD]	~0.500 INCHES [12.7mm] MID SPAN
DYNAMIC BEND RADIUS	2.5 INCHES [50.8mm]
TEMPERATURE RANGE	-55 / + 125 DEGREES C
MATING TORQUE	7 - 12 IN-LBS, CONNECTOR DEPENDENT
CONNECTOR INTERFACES	MIL-STD-348A; MIL-C-39012, IEEE287
CAPACITANCE, IMPEDANCE [NOM]	24 pF/FT ~ 50 OHMS
PROPAGATION VELOCITY NOM.	VP83%/84%; VP76 [2.4MM ONLY]
RF LEAKAGE	>100 dB->18 GHZ [MIL-T-81490]
SUSTAINABILITY FEATURES	MODULAR BUILD AND CONNECTORS
HAND GRIPS	PASSIVATED STAINLESS ASTM A967
WEIGHT [TYP. ASSEMBLY, 28 in]	5.3 oz [150g] ~ CABLE + SMA CONNECTORS

NOTES: [i] THE CONEXUS SERIES WAS DESIGNED AS A LONG TERM SERVICE SOLUTION FOR GENERAL PURPOSE TEST CABLE DEPLOYMENT WHERE SUSTAINABILITY IS A REQUIREMENT; [ii] MODULAR BUILD FOR COMPONENT REPLACEABILITY AND EXTENDED OPERATIONAL LIFE.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

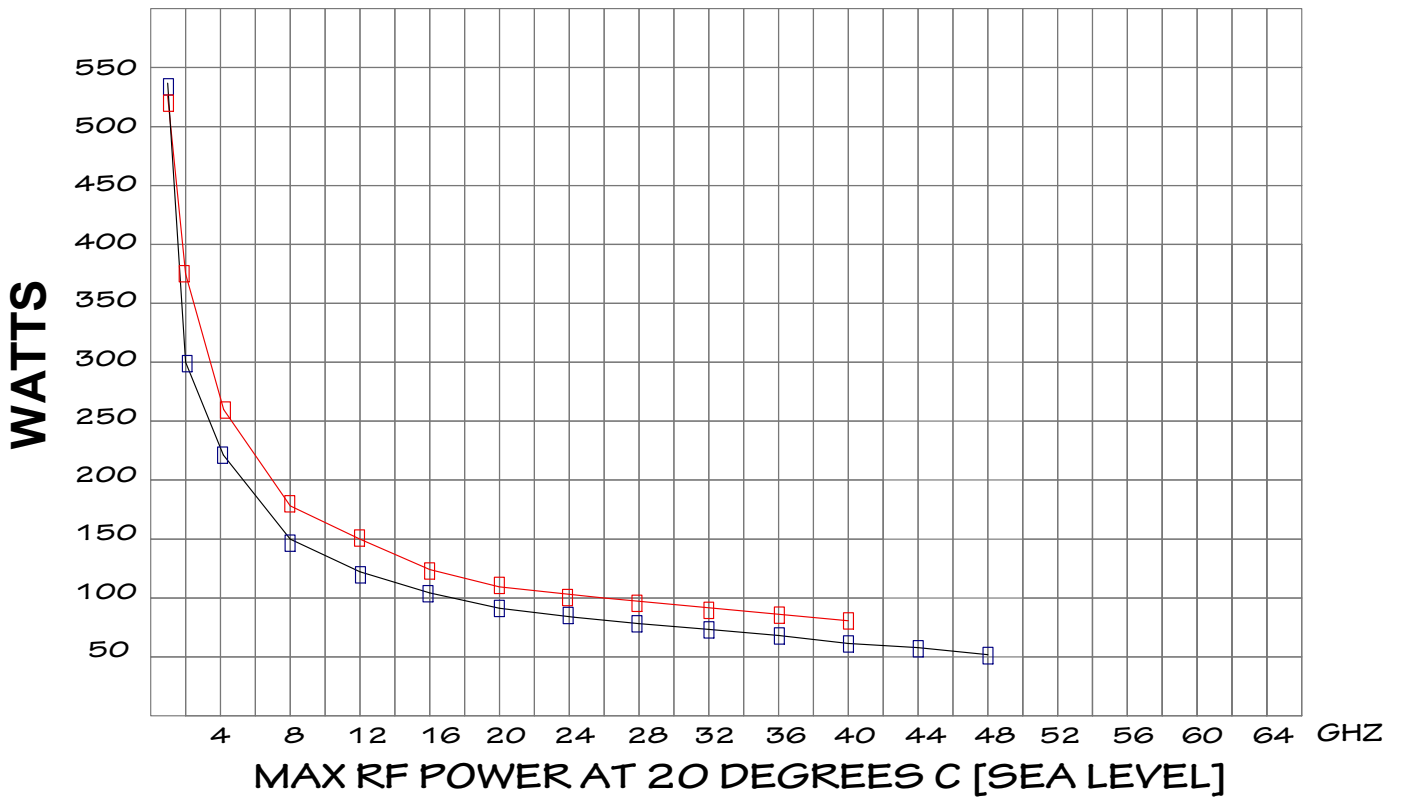
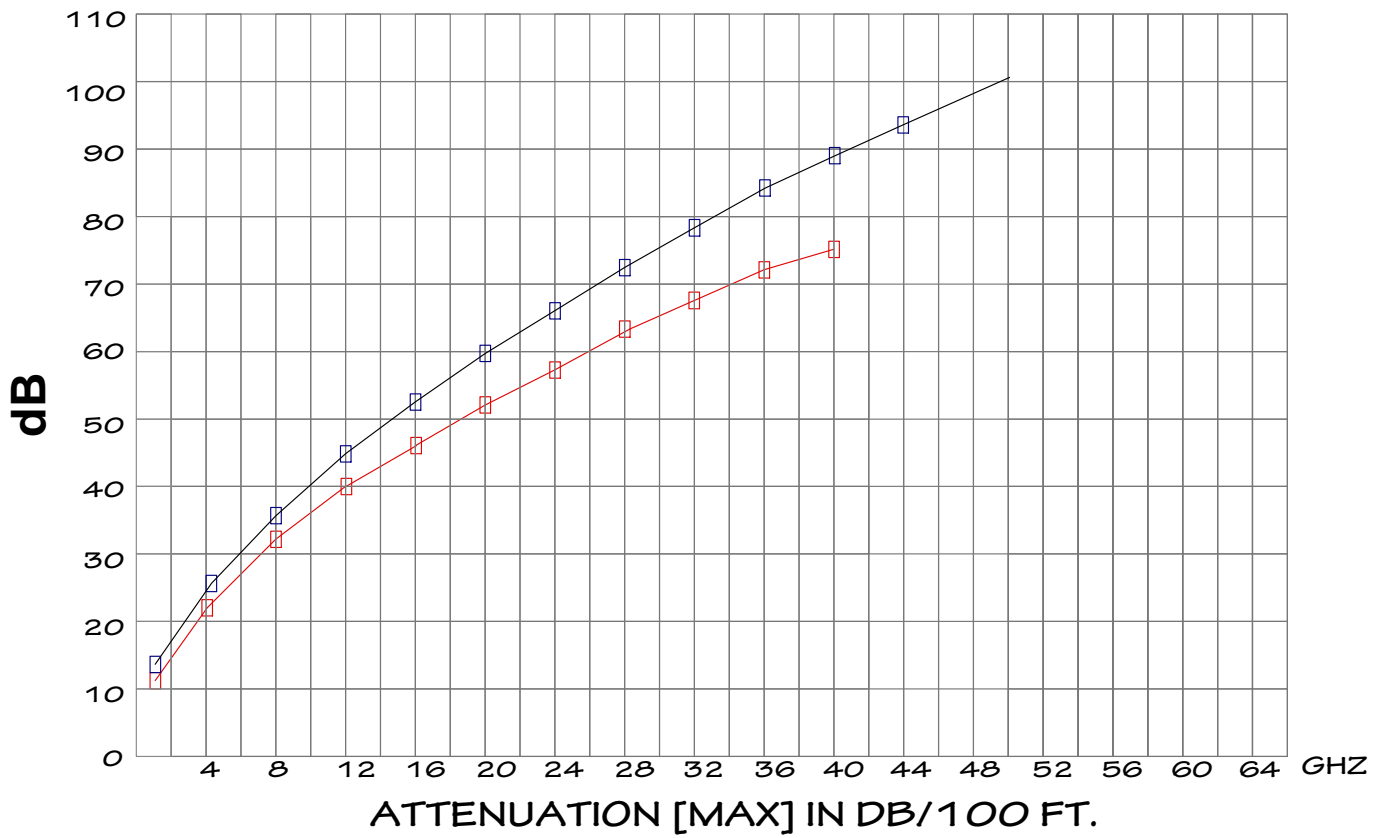
CONEXUS SERIES

GENERAL PURPOSE MODULAR TEST CABLE WITH REPLACEABLE FEATURES

ULTRA STABLE RELATIVE TO TEMP AND FLEXURE

Velocity Microwave ~ div. ATX Labs

www.velocitymicrowave.com



NOTES: [i] THE CONEXUS SERIES WAS DESIGNED AS A LONG TERM SERVICE SOLUTION FOR GENERAL PURPOSE TEST CABLE DEPLOYMENT WHERE SUSTAINABILITY IS A REQUIREMENT;
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CONEXUS SERIES

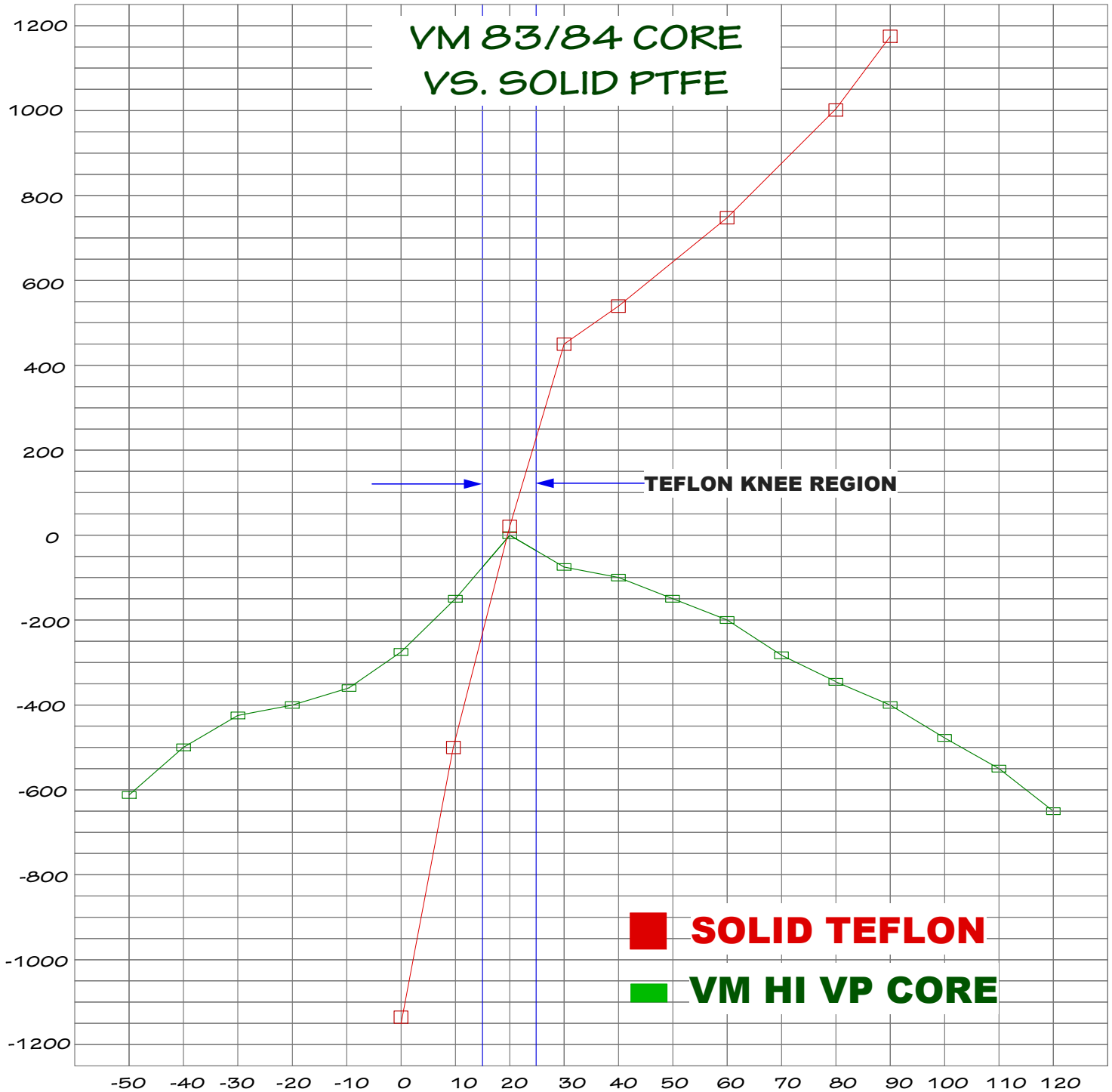
GENERAL PURPOSE MODULAR TEST CABLE WITH SUSTAINABLE FEATURES

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MAXIMUM PHASE CHANGE VS TEMPERATURE

VM 83/84 CORE
VS. SOLID PTFE



$\Delta\Phi = 3.63E-05 \times L \times F \times PPM$, WHERE L [INCHES], F [GHZ], & PPM AS GIVEN PER CHART. FOR EXAMPLE, FOR L = 24 INCHES, F = 40 GHZ, PPM = 75, THEN $\Delta\Phi = 2.6$ DEGREES MAX PHASE VARIATION IN THE REGION OF THE TEFLON KNEE BETWEEN 15C AND 25C.

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CONEXUS SERIES

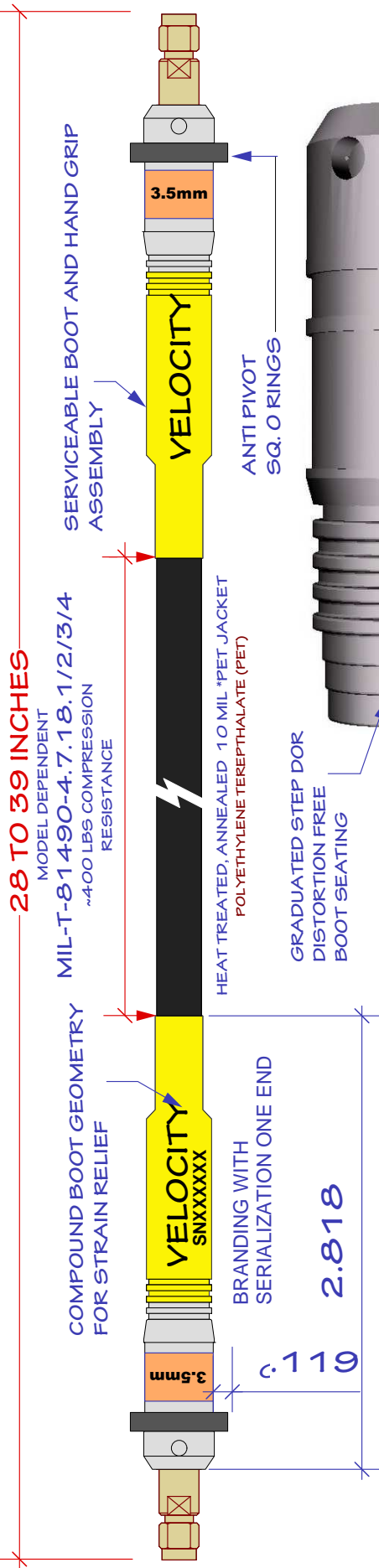
GENERAL PURPOSE MODULAR TEST CABLE WITH SUSTAINABLE FEATURES

ULTRA STABLE RELATIVE TO TEMP AND FLEXURE

Velocity Microwave ~ div. ATX Labs

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NOTE: THE CONEXUS SERIES IS A GENERAL PURPOSE MICROWAVE TEST CABLE THAT IS MODULAR IN DESIGN. A MODULAR BUILD ALLOWS SUSTAINABILITY BY VIRTUE OF COMPONENT REPLACEMENT AS NEEDED.



APC7
TYPE N
SMA
3.5mm
2.9mm
2.4mm

NOTES:

- STRAIN RELIEF COMPONENTS SS303 BRUSHED AND/OR POLISHED
- COPPER WELD STEEL INNER BRAID FOR COMPRESSION NORMAL TO AXIS
- FULL VERTICAL BUILD MODULARITY FOR EXTENDED SERVICE LIFE
- STAINLESS STEEL NMD AND STANDARD 2.4mm/2.92mm/3.5mm/TYP E N CONNECTORS
- HIGH VELOCITY INTERNAL COAXIAL LINE, PHASE AND AMPLITUDE STABLE
- ACRYLONITRILE BUTADIENE O RINGS [2 PLC5] PROOF OF SURFACE BY ~1.0 MILS
- COMPRESSION RESISTANCE (LOAD NORMAL) ~400 LBS PER MIL-T-81490-1972 STEP

PROPRIETARY & CONFIDENTIAL THE INFORMATION CONTAINED HEREIN IS THE SOLE PROPERTY OF ATX LABS. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ATX LABS IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ANGULAR: MACH +/- .5 DEG. BEND: +/- 1 DEG. TWO PLACE DECIMAL: +/- 0.01 THREE PLACE DECIMAL: +/- 0.001 MATERIAL: 6061-T6 SRC/SS303/4 FINISH: <Ra32 [SS SURFACE]		WKFLOW DRAWN ENG APPR MFG APPR Q.A. COMMENTS:	NAME em vs jm ds	DATE 1-11-2014 2-02-2014 2-15-2014 4-8-2014	ATX LABS Tisbury, MA 02568
TITLE MODULAR CABLE ASSEMBLY WITH SUSTAINABLE FEATURES		SCALE 1:1		REV A	REV 5
SIZE DWG. NO. A		ATX-103		SHEET: 1 OF 1	

ATX: SMALL FORM A

ZONE	REV.	DESCRIPTION	DATE	APPROVED

REVISIONS	1	2	3	4	5	6	7	8	9	10
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SUSTAINABILITY

VELOCITY MICROWAVE [VM] CONEXUS AND LABFLEX CABLE ASSEMBLIES, IN THE INTEREST OF SUPPORTING PRUDENT ECO MANAGEMENT AND MINIMAL WASTE FOOTPRINT, ARE BUILT TO BE SUSTAINABLE, WHERE SUSTAINABILITY IMPLIES A MODULAR BUILD THAT SUPPORTS COMPONENT REPLACEMENT TO EXTEND PRODUCT LIFE. ONE SUCH FEATURE IS THE ABILITY TO REPLACE THE CONNECTORS, SOMETHING THAT CAN BE DONE BY VM, OR EVEN IN THE FIELD BY THE END USER. VM HAS A FIELD KIT FOR THIS PURPOSE THAT SUPPORTS THE FIELD REPLACEMENT OF CONNECTORS. HOWEVER, WE ONLY RECOMMEND FIELD REPLACEMENT IF CERTAIN CONDITIONS ARE IN PLACE, AS DEFINED BELOW:

[A] GAGING RESOURCES: THE FIELD TECHNICIAN SHALL BE ABLE TO ACCURATELY GAUGE CONNECTORS TO DETERMINE - WITH UNCERTAINTIES - THE RECESSION CHARACTERISTICS OF THE CONNECTOR THAT IS IDENTIFIED AS A CANDIDATE FOR REPLACEMENT.

[B] CALIBRATION RESOURCES: THE FIELD TECHNICIAN - IN THE EVENT OF AN ELECTRICAL FAULT - SHALL BE ABLE TO ACCURATELY DETERMINE WHICH CONNECTOR IS A CANDIDATE FOR REPLACEMENT BASED ON DIRECT MEASUREMENT OF THE RF PATH IN THE TIME DOMAIN. TO THIS END, THE FIELD TECHNICIAN SHALL HAVE ACCESS TO CALIBRATED NETWORK ANALYZER OF SUFFICIENT BANDWIDTH AND BE ABLE TO PERFORM THE FOLLOWING:

[i] A 1 2 TERM CALIBRATION OR EQUIVALENT

[ii] ASSURANCE TESTING - TO DETERMINE THE VALIDITY OF THE CALIBRATION USING EITHER A DIRECT MEASUREMENT OF RESIDUALS, RIPPLE AND PORT MATCH, IN THE FREQUENCY DOMAIN - OR USING A GATED RETURN LOSS AFTER THE APPROPRIATE ISOLATION OF THE RESIDUAL IN TIME - FOLLOWED BY BEST PRACTICE [AS OUTLINED FOR EXAMPLE IN EURAMET cg-12. Version 2.0 (03/2011), GUIDELINES ON THE EVALUATION OF VECTOR NETWORK ANALYSERS (VNA)]

[iii] VERIFICATION TESTING - (ALTERNATIVELY) TO DETERMINE THE VALIDITY OF THE CALIBRATION USING ARTIFACTS THAT ARE AVAILABLE IN COMMON VERIFICATION KITS, OR USING ARTIFACTS MADE AVAILABLE BY NIST.

[C] VM FIELD KIT OR EQUIVALENT SHALL BE USED: THE VM FIELD KIT IS DESIGNED TO FACILITATE CONNECTOR REPLACEMENT IN THE FIELD. VM RECOMMENDS THAT ONLY EXPERIENCED TECHNICIANS SHOULD ATTEMPT FIELD CONNECTOR REPLACEMENT AND CALIBRATION, AND THAT THE TECHNICIAN REVIEW VM'S WRITTEN AND/OR VIDEO GUIDANCE PRIOR TO REPLACEMENT.

GREEN CONNECTIVITY:

VM SPECIALIZES IN WHAT IT CALLS *GREEN CONNECTIVITY* IN THE DESIGN AND MANUFACTURE OF MICROWAVE CABLE ASSEMBLIES FOR TEST AND MEASUREMENT. TO THIS END VM CABLE ASSEMBLIES ARE MODULAR, AS MODULARITY PROVIDES AN IMPORTANT DEGREE OF FREEDOM IN BEING ABLE TO ACHIEVE COMPONENT REPLACEMENT IN THE INTEREST OF BOTH A SMALLER WASTE FOOTPRINT AND A LONGER PRODUCT LIFE. HOWEVER, WHILE VM HAS CONFIDENCE IN THE SUITABILITY OF BOTH THE ASSEMBLY AND THE FIELD KIT AS PLATFORMS SUPPORTING THE GOAL OF FIELD REPLACEMENT AND SUSTAINABILITY - WE DO NOT WARRANT THE ACTUAL REPLACEMENT BY THE END USER.

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CONEXUS SERIES

GENERAL PURPOSE MODULAR TEST CABLE WITH SUSTAINABLE FEATURES

ULTRA STABLE RELATIVE TO TEMP AND FLEXURE

Velocity Microwave ~ div. ATX Labs
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— RoHS / REACH —

COMPLIANCE CERTIFICATION

Velocity Microwave (div. ATX Labs) RoHS Compliance Certification



Velocity Microwave [hereafter designated VM], a division of ATX Labs, certifies that all of the products manufactured under the Velocity Microwave brand are in compliance with EU Directive 2011/65EU on the use of certain substances employed in electrical, electronic and microwave equipment that have been designated as hazardous.

Restricted Substance	Maximum Threshold Limit
Cadmium and its compounds	100 ppm (0.01 weight %)
Mercury and its compounds	1000 ppm (0.1 weight %)
Hexavalent chromium and its compounds	1000 ppm (0.1 weight %)
Lead and its compounds *	1000 ppm (0.1 weight %)
Polybrominated biphenyls (PBB)	1000 ppm (0.1 weight %)
Polybrominated diphenyl ethers (PBDE)	1000 ppm (0.1 weight %)
Decabromine diphenyl ether (DECA BDE)	1000 ppm (0.1 weight %)

* Except when allowed by the Directive. For example, 3500 ppm in steel, 4000 ppm in aluminum alloys and 40000 ppm in copper alloys.

VM Partial Materials List

The products in the following classes: **Labflex** cable assemblies; **Benchflex** cable assemblies; **Conexus** cable assemblies; **Conexus HD** cable assemblies; **Continuum** cable assemblies; **Vector** cable assemblies; **Ergon** interface gages and kits, **Legacy** interface gages and kits, **Element** interface gages and kits, **Datum** interface gages and kits; **VM repair** kits; VM connectors of species **SMA, 2.92mm (K); 3.5mm; 2.4mm; 1.85mm; Type N; TNC; APC-7** – contain some or all of the following materials – as well as materials not listed though nevertheless fully compliant with **EU Directive 2011/65EU**.

Material Class	Finish, Construction or Reference Standard
Alloy Steel	Copper Clad per ASTM B-501
Soft Copper	Silver plated per ASTM B-298
Copper foil	Silver plated per ASTM-B-298

Expanded PTFE	Type F6 per MIL-C-17 or ASTM D-14577		
FEP	Per ASTM D-2116, FQQ flammability test UL94		
(BLANK)			
Stainless Steel	Class AISI-303 UNS20200 SAE30303 – Per:		
	per AMS 5664U Type 1	ASTM A582 12	ASTM A262 10 Practice A/E
	AASTM E112 96	Federal Spec QQ-S-764B	DFARS 232.225.7009 10-4-11
	ASTM A484 13	DIN 50049/en10204 Type 3.1	ASTM 484 13
	Passivation per ASTM A967, AMS 2700, QQ-P-35		
PEI (Polyetherimide)	Resin certified to ASTM D 5205 PEI 0113		
Solder	SnAgCu: ~ 2.5% Silver, 0.9% copper, (100-2.5-0.9)% Tin balance; Typ.		
Aluminum	6061T6, anodized TYPES II & III per		
Polyolefin	Thin wall Heat shrinkable polyolefin MIL-DTL-23053/5 Class 1 & 3 UL224 corrosion and fire rated		
	Thick wall Heat shrinkable polyolefin MIL-DTL-23053/5 Class 1 & 3 UL224 corrosion and fire rated; encapsulating modified polyamide adhesive		
	Ultra thin wall Heat shrinkable polyolefin MIL-DTL-23053/5 Class 1 & 3 UL224 corrosion and fire rated		
Foam	Closed cell polyethylene, 2.3 lb – 4 lb. ASTM D 3575-93		
	Convuluted static dissipative <10e11 ohms polyurethane pink foam laminated to top and fitted in bottom; California 117 - Note: All Testing Done By ASTM D 3574Standard Rev. 1, 12-3-02		
Jacketing	Polyethylene terephthalate FMVSS302, UL94 flame resistance, ASTM G21 Fungus resistance		
Rubber	Oil resistant Buna N O-ring SAE J200 Durometer A70		
	High temperature Silicone SAE J200 Durometer A70		
	Steam Resistant EPDM SAE J200 Durometer A70		
Packaging	ESD shielding with lid closed; “Faraday Cage” effect restricting electrostatic charges to exterior; tested per FED-STD-101, Method 3005 for reducible sulfur		
Vinyl	Connector caps durometer of 75A, maximum temperature of 180° F. - assorted colors.		
	Vinyl substrate 30 mil (.08mm) magnetic mats and signage		
Pigments	Inkjet applied Orcal eco-solvent based inks UV protected		
Adhesives	Polyacrylate, Acrylate polymers permanent, transparent		
(BLANK)			

Velocity Microwave
(div. ATX Labs)
REACH Compliance Certification



Velocity Microwave is deeply committed to the European Union Regulation governing the Registration, Evaluation and Authorization of Chemical (**REACH EC Regulation Number 1907 / 2006**).

[I] Velocity Microwave further represents that it monitors both its internal manufacturing process, as well as that of components in its supply chain, to be free of any substance on the Candidate List of Substances of Very High Concern for Authorization (SVHC) – published in accordance with **Article 59(10) of the REACH Regulation** – and deemed authentic in only the following locus:

<https://echa.europa.eu/candidate-list-table>

[II] Velocity Microwave still further represents that no substances on the REACH SVHC Candidate list, per the above, shall be found in a concentration greater than 0.1% - by weight – in any of the products below in the list designated as **2016 PMVM**, manufactured by Velocity Microwave, or transferred through Velocity Microwave as a pass through agent by either inattention or design.

2016PMVM

Microwave Test and Measurement Cable Assemblies

Labflex microwave test cable assemblies commonly designated with the prefix LF; **Benchflex** microwave test cable assemblies commonly designated with the prefix BF; **Conexus** microwave test cable assemblies commonly designated with the prefix GP; **Conexus HD** microwave test cable assemblies commonly designated with the prefix GP and the subsequent designator HD; **Continuum** microwave test cable assemblies commonly designated with the prefix CN; **Vector** microwave test cable assemblies commonly designated with the prefix TPX; **Custom** Assemblies developed to meet specific customer requirement; **VM repair kits** deployed as field repair aids for the above microwave test cables.

Microwave Gaging Apparatus

Ergon microwave connector interface gages and kits containing ancillary components, **Legacy** microwave connector interface gages and kits containing ancillary components, **Datum** microwave connector interface gages and kits containing ancillary components; **Element** microwave connector interface gages and kits containing ancillary components; **Ancillary data port** connectors and devices for Datum Gage.

Microwave Connectors ~Subminiature and Larger Families

SMA microwave connector of the subminiature class; **2.92mm (K)** microwave connector of the subminiature class; **3.5mm** microwave connector of the subminiature class; **2.4mm** microwave connector of the subminiature class; **1.85mm** microwave connector of the subminiature class; **Type N** microwave connector 7mm class; **APC7** hermaphroditic microwave connector of the 7mm class; **TNC** microwave connector.

Microwave Torquing Apparatus

8 in-lb Torque wrench with 5/16 dimension designated for use with subminiature microwave connectors; **12 in-lb Torque wrench** with 19mm dimension designated for use with 7mm of the Type N class microwave connectors; **12 in-lb Torque wrench** with 20 dimension designated for use with 7mm of the Type N class microwave connectors; **12 in-lb Torque wrench** with 19mm dimension designated for use with NMD class microwave connectors; **12 in-lb Torque wrench** with 20 dimension designated for use with NMD class microwave connectors; **8 in-lb Torque wrench** with 19mm dimension designated for use with NMD class microwave connectors; **8 in-lb Torque wrench** with 20 dimension designated for use with NMD class microwave connectors; **20 in-lb Torque wrench** with 5/16 dimension designated for use with subminiature microwave connectors as a repair and installation aid.

Velocity Microwave

[Div. ATX Labs]

Located at:

Production

151 Beach Road, Unit 1B
Vineyard Haven, MA 02568
Phone: 508-338-2333

Material Test & Development

9 Beechtree Road,
Chilmark, MA 02535
Phone: 508-645-7980

www.velocitymicrowave.com