

GenSPEED® Category 6A Enhanced Cables

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General Cable recognizes that application and performance needs may vary, which is why the Company is pleased to now offer four 10 Gigabit solutions: GenSPEED® 10 MTP™ Category 6A 10 Gig Cable; GenSPEED® 10,000 Category 6a 10 Gig Cable; GenSPEED® 10,000 Shielded Category 6a 10 Gig Cable; and NextGen® OM3 Fiber Optic 10 Gig Cable.

General Cable's industry-leading 10 Gig solution, **GenSPEED 10 MTP Category 6A Cable**, featuring the new revolutionary **Mosaic Crossblock™** technology, provides an Unshielded-Twisted Pair (UTP) cable that performs like a Shielded or Foiled-Twisted Pair (STP/FTP) cable.

GenSPEED 10 MTP's Mosaic Crossblock technology shields the cable from noise coming from external cable sources, which is referred to as alien crosstalk (PSANEXT and PSAACRF). The Mosaic Crossblock was carefully designed with metallic blocks separated by an insulating layer. Since there is no metal-to-metal contact, there is no path for current to flow longitudinally, and thus, no need for grounding.

General Cable's second offering, **GenSPEED 10,000 Category 6a Cable**, is a cost-effective, standard-compliant 10 Gig UTP cabling option designed to meet ANSI/TIA 568 B.2-10. Perfect for component upgrades, this cable is fully backward-compatible to legacy infrastructures and prepares your system for future 10 Gigabit applications. GenSPEED 10,000 solves the One Gigabit limitation of Category 5e and Category 6 and is an ideal solution for bandwidth-intensive applications.

Next is General Cable's **GenSPEED 10,000 Category 6a Shielded 10 Gig Cable**. GenSPEED 10,000 Shielded is an STP cable with individually shielded pairs for optimized isolation between pairs and immunity from external noise characterized by powersum alien crosstalk (PSANEXT) in cable bundles. Shields are an extremely effective way of protecting the cable from outside noise ("alien sources") by moving the electromagnetic energy away from the pairs and directing it through the shield and drain wire to the ground. Of course, STP cables are only effective if they are properly grounded. GenSPEED 10,000 Shielded offers you the ultimate PSANEXT protection.

Last but not least, General Cable rounds out its 10 Gig offering with **NextGen OM3 Fiber Optic Cable**, the optimum in 10 Gb/s fiber (which can be found in our Fiber Optic Catalog). General Cable has partnered with Corning® Optical Fiber to supply you the world's most technologically advanced optical fiber cables. The bandwidth is ensured by minEMBc, and uniformity provides field performance of shorter lengths. With 100% testing on this product, you don't have to worry about performance and reliability. Your cabling system will be future-proofed, because all NextGen 10 Gb/s fiber exceeds the specifications to which it is sold, typically allowing for more system margin and extended reach.

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GenSPEED® Category 6A Quick Reference Guide

JACKET COLOR	PACKAGE	STANDARD		ENHANCED		PREMIUM	
		Category 6a GenSPEED® 10,000		Category 6a GenSPEED® 10,000 Shielded		Enhanced Category 6A GenSPEED® 10 MTP™	
		CMR	CMP	CMR	CMP	CMR	CMP
Blue							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133819	7131819	7133786	7131786	7133849	7131849
White							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133820	7131820	7133787	7131787	7133850	7131850
Yellow							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133822	7131822	7133788	7131788	7133852	7131852
Gray							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133821	7131821	7133789	7131789	7133851	7131851
Red							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133824	7131824	7133790	7131790	7133854	7131854
Orange							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133826	7131826	7133791	7131791	7133856	7131856
Green							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133823	7131823	7133792	7131792	7133853	7131853
Black							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133828	7131828			7133858	7131858
Pink							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133827	7131827			7133857	7131857
Purple							
	Pull-Pac®						
	Spool-Pac®						
	Spool	7133825	7131825	7133830	7131830	7133855	7131855

Note: Non-stock items may be subject to minimum order quantities.

GenSPEED® 10 MTP™ Category 6A Cable

Features And Benefits

- 10 MTP™ unshielded-twisted pair (UTP) design performs like a shielded or foiled-twisted pair (STP/FTP) cable, providing industry-leading protection from external cable noise sources, also known as alien crosstalk (PSANEXT and PSAACRF)
- Mosaic Crossblock™ is a thin tape made up of individual metallic blocks separated by an insulating layer. Since there is no metal-to-metal contact, there is no path for current to flow longitudinally, and thus, no need for grounding
- The Flex-Separator™ optimizes internal pair geometry to yield superior electrical performance and maintain flexibility. This unique cross-web stabilizes each pair to create a smaller, **round** cable profile
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications

- IEEE 802.3 10G BASE-T, 100 BASE-T
- 100 BASE-TX, 10 BASE-T, 1000 BASE-TX
- 155 Mb/s ATM
- IEEE 802.3af for PoE
- Draft IEEE 802.3at for PoE Plus
- ANSI X3.263: 100Mb/s

Standard Compliances

- ANSI/TIA 568 B.2-10
- TIA 568 C Draft
- RoHS Compliant Directive 2002/95/EC
- UL 444



VERIFIED

RoHS Compliant
Directive 2002/95/EC

featuring



Data subject to change without notice.



CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

Color Code

- Pair 1: Blue-White
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

Separator

- Cross-Web

Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.305	0.305
Nominal Cable Weight (lbs/1000ft)	35	44
Minimum Bend Radius (in)	1.25	1.25
Maximum Pulling Force (lbs)	40	40
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

PART NUMBERS

Standard packaging: 1000' Spool

Jacket Color	Spool	
	CMR (Non-Plenum)	CMP (Plenum)
 Blue	7133849	7131849
 White	7133850	7131850
 Yellow	7133852	7131852
 Gray	7133851	7131851
 Red	7133854	7131854
 Orange	7133856	7131856
 Green	7133853	7131853
 Black	7133858	7131858
 Pink	7133857	7131857
 Purple	7133855	7131855

Note: Non-stock items may be subject to minimum order quantities.

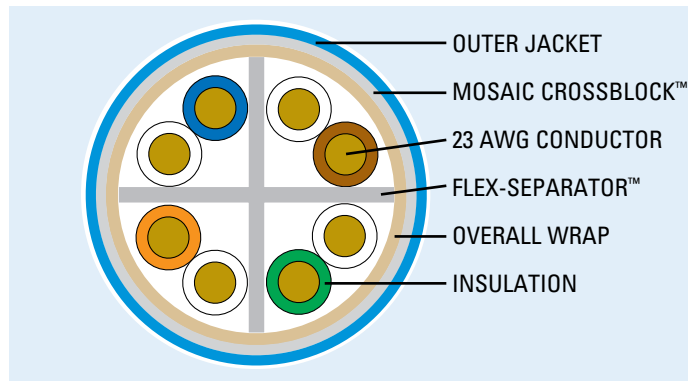
An Unshielded 6A Cable That Performs Like a Shielded Cable

ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (min)	PSNEXT (min)	NEXT (min)	PSELFEXT (min)	ELFEXT (min)	Return Loss (min)	TCL (min)	PSANEXT (min)			PSAACRF (min)			
	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	TIA 568 B.2-10	General Cable Guaranteed	General Cable Typical	TIA 568 B.2-10	General Cable Guaranteed	General Cable Typical
1	70.2	72.2	2.1	72.3	74.3	64.6	67.8	20.0	40.0	67.0	73.0	79.0	67.0	73.0	79.0	
4	59.5	61.5	3.8	63.3	65.3	52.8	55.8	23.0	40.0	67.0	73.0	79.0	66.2	72.2	78.2	
10	51.4	53.4	5.9	57.3	59.3	44.8	47.8	25.0	40.0	67.0	73.0	79.0	58.2	64.2	70.2	
16	46.8	48.8	7.5	54.2	56.2	40.7	43.7	25.0	38.0	67.0	73.0	79.0	54.1	60.1	66.1	
20	44.4	46.4	8.4	52.8	54.8	38.8	41.8	25.0	37.0	67.0	73.0	79.0	52.2	58.2	64.2	
31.25	39.4	41.4	10.5	49.9	51.9	34.9	37.9	23.6	35.1	67.0	73.0	79.0	48.3	54.3	60.3	
62.5	30.4	32.4	15.0	45.4	47.4	28.9	31.9	21.5	32.0	65.6	71.6	77.6	42.3	48.3	54.3	
100	23.2	25.2	19.1	42.3	44.3	24.8	27.8	20.1	30.0	62.5	68.5	74.5	38.2	44.2	50.2	
150	16.0	18.0	23.7	39.7	41.7	21.3	24.3	18.9	28.2	59.9	65.9	71.9	34.7	40.7	46.7	
200	10.2	12.2	27.6	37.8	39.8	18.8	21.8	18.0	27.0	58.0	64.0	70.0	32.2	38.2	44.2	
250	5.2	7.2	31.1	36.3	38.3	16.8	19.8	17.3	26.0	56.5	62.5	68.5	30.2	36.2	42.2	
300	0.9	2.9	34.3	35.1	37.1	15.3	18.3	16.8	25.2	55.3	61.3	67.3	28.7	34.7	40.7	
400	—	—	40.1	33.3	35.3	12.8	15.8	15.9	24.0	53.5	59.5	65.5	26.2	32.2	38.2	
500	—	—	45.3	31.8	33.8	10.8	13.8	15.2	23.0	52.0	58.0	64.0	24.2	30.2	36.2	

Note: Values are expressed in dB per 100m (328 ft.) length.

TYPICAL GenSPEED® 10 MTP™ CATEGORY 6A CROSS-SECTION

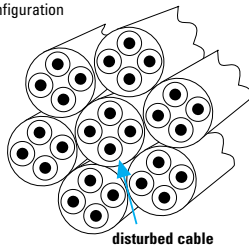


ELECTRICAL CHARACTERISTICS

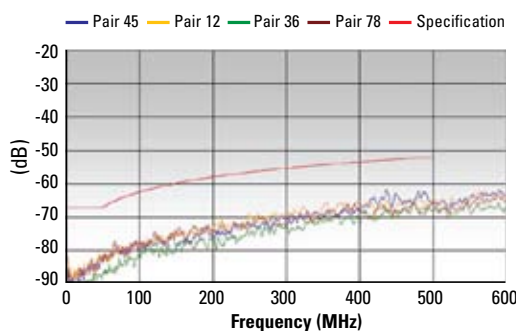
DC Resistance (max) Ohms/100m (328ft) @ 20°C	9.38 ohms/100m
DC Resistance Unbalanced (max) Individual Pair %	4%
Delay Skew (max) ns/100m	35 ns/100m
Nom. Velocity of Propagation % Speed of Light	70%
Characteristic Impedance Frequency (f): 1-500 MHz	100 ohms ± 15 ohms

4 PAIR CABLES: Bundles of 7 Test Results

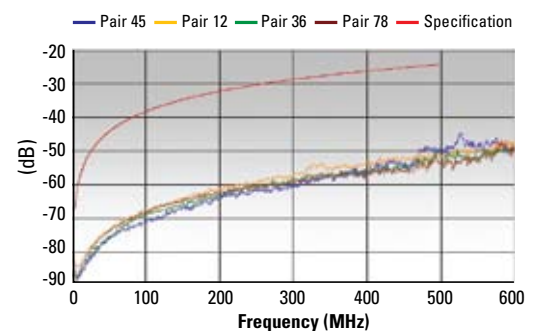
Six-around-one
configuration



PSANEXT



PSAACRF



GenSPEED® 10,000 Category 6a Shielded Cable

Features And Benefits

- Shielded design allowing for maximum pair separation, increasing key electrical performance parameters
- Individual pair shielding for EMI protection
- Typical positive PSACR beyond 500 MHz for increased available bandwidth
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications

- IEEE 802.3an: 10G BASE-T (10 Gigabit Ethernet) supporting 100 meters
- 1000 BASE-TX (Gigabit Ethernet)
- 2.4/1.2 Gb/s ATM

Standard Compliances

- ANSI/TIA/EIA 568 B.2-10
- TIA 568 C Draft
- ISO/IEC 11801 Ed. 2.0 (Class E)
- ICEA S-102-700 (Category 6)
- NEC/CEC Type CMR (UL 1666) for Non-Plenum
- NEC/CEC Type CMP (NFPA 262) for Plenum
- RoHS Compliant Directive 2002/95/EC
- UL 444



CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Insulation

- Non-Plenum: HDPE
- Plenum: Foamed Fluoropolymer

Color Code

- Pair 1: Blue-White
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

Shield

- Each pair is individually shielded with an aluminum foil
- 24 AWG drain wire

Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.310	0.290
Nominal Cable Weight (lbs/1000ft)	50	45
Minimum Bend Radius (in)	3.10	2.90
Maximum Pulling Force (lbs)	32	32
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

PART NUMBERS

Standard packaging: 1000' Spool

Jacket Color	Spool	
	CMR (Non-Plenum)	CMP (Plenum)
 Blue	7133786	7131786
 White	7133787	7131787
 Yellow	7133788	7131788
 Gray	7133789	7131789
 Red	7133790	7131790
 Orange	7133791	7131791
 Green	7133792	7131792
 Purple	7133830	7131830

Note: Non-stock items may be subject to minimum order quantities.

Data subject to change without notice.

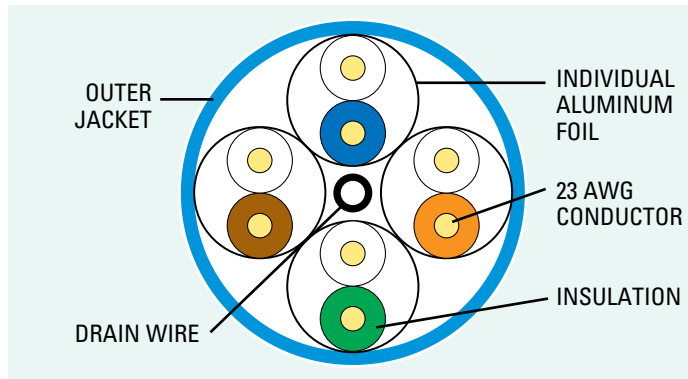
A Shielded 10 Gig Option for Peace of Mind

ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (max)	PSNEXT (min)	NEXT (min)	PSELFEXT (min)	ELFEXT (min)	Return Loss (min)	LCL/TCL (min)	PSANEXT (min)	PSAACRF (min)
1	70.2	72.2	2.1	72.3	74.3	70.8	73.8	20.0	50.0	77.0	77.0
4	68.5	70.5	3.8	72.3	74.3	58.8	61.8	23.0	44.0	77.0	76.2
10	66.3	68.3	5.9	72.3	74.3	50.8	53.8	25.0	40.0	77.0	68.2
16	63.6	66.6	7.5	71.2	74.2	46.7	49.7	25.0	38.0	77.0	64.1
20	61.3	64.3	8.4	69.8	72.8	44.8	47.8	25.0	37.0	77.0	62.2
31.25	56.1	59.1	10.5	66.9	69.9	40.9	43.9	23.6	35.1	77.0	58.3
62.5	46.9	49.9	15.0	62.4	65.4	34.9	37.9	21.5	32.0	75.6	52.3
100	39.4	42.4	19.1	59.3	62.3	30.8	33.8	20.1	30.0	72.5	48.2
200	25.6	28.6	27.6	54.8	57.8	24.8	27.8	18.0	27.0	68.0	42.2
250	20.3	23.3	31.1	53.3	56.3	22.8	25.8	17.3	26.0	66.5	40.2
300	15.5	18.5	34.3	52.1	55.1	21.3	24.3	16.8	25.2	65.3	38.7
350	11.2	14.2	37.2	51.1	54.1	19.9	22.9	16.3	24.6	64.3	37.3
400	7.1	10.1	40.1	50.3	53.3	18.8	21.8	15.9	24.0	63.5	36.2
500	—	2.7	45.3	48.8	51.8	16.8	19.8	15.2	23.0	62.0	34.2
600	—	—	50.1	47.6	50.6	15.2	18.2	14.7	22.2	60.8	32.6

Note: Values are expressed in dB per 100m (328 ft.) length.

GenSPEED® 10,000 SHIELDED CATEGORY 6a CROSS-SECTION



ELECTRICAL CHARACTERISTICS

DC Resistance (max) Ohms/100m (328ft) @ 20°C	8.9
DC Resistance Unbalance (max) Individual Pair %	3.0
Delay Skew (max) ns/100m	35
Nom. Velocity of Propagation % Speed of Light	CMP: 78 CMR: 75
Characteristic Impedance Frequency (f): 1-600 MHz	Ohms 100 ± 15
Input Impedance Frequency (f): 1-100 MHz 100-200 MHz 200-600 MHz	Ohms 100 ± 15 100 ± 22 100 ± 32

GenSPEED® 10,000 Category 6a Cable

Features And Benefits

- Extensive design development conducted to find the perfect blend of product performance and consistent manufacturability
- Innovative T-Top cross-web provides superior internal electrical characteristics by locking the pairs into a systematic orientation within the cable
- Superior flame and smoke characteristics achieved through innovative design and careful selection of materials with certified suppliers
- TRU-Mark® print legend contains footage markings from 1000' to 0'

Applications

- IEEE 802.3: 10G BASE-T, 100 BASE-T
- 100 BASE-TX, 10 BASE-T, 1000 BASE-TX
- ANSI/TIA/EIA-854: 1000 BASE-TX
- 155 Mb/s ATM
- ANSI X3.263: 100 Mb/s
- IEEE 802.3af for PoE
- Draft IEEE 802.3at for PoE Plus

Standard Compliances

- ANSI/TIA 568 B.2-10
- TIA 568 C Draft
- RoHS Compliant Directive 2002/95/EC
- UL 444



CONSTRUCTION

Conductors

- 23 AWG solid bare annealed copper

Insulation

- Non-Plenum: Polyolefin
- Plenum: Fluoropolymer

Color Code

- Pair 1: Blue-White
- Pair 2: Orange-White
- Pair 3: Green-White
- Pair 4: Brown-White

Separator

- T-Top cross-web

Jacket

- Non-Plenum: Flame-Retardant PVC
- Plenum: Low-Smoke, Flame-Retardant PVC

PHYSICAL DATA

	CMR (Non-Plenum)	CMP (Plenum)
Nominal Cable Diameter (in)	0.330	0.320
Nominal Cable Weight (lbs/1000ft)	42	45
Minimum Bend Radius (in)	1.5	1.5
Maximum Pulling Force (lbs)	40	40
Temperature Rating (°C)		
Installation:	0 to +60	0 to +60
Operation:	-20 to +75	-20 to +75

PART NUMBERS

Standard packaging: 1000' Spool

Jacket Color	Spool	
	CMR (Non-Plenum)	CMP (Plenum)
 Blue	7133819	7131819
 White	7133820	7131820
 Yellow	7133822	7131822
 Gray	7133821	7131821
 Red	7133824	7131824
 Orange	7133826	7131826
 Green	7133823	7131823
 Black	7133828	7131828
 Pink	7133827	7131827
 Purple	7133825	7131825

Note: Non-stock items may be subject to minimum order quantities.

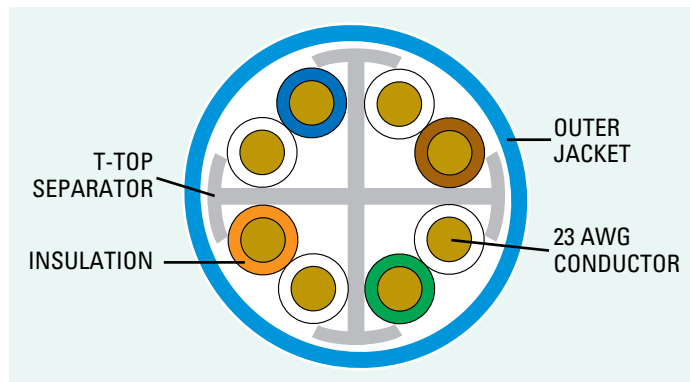
Data subject to change without notice.

ELECTRICAL PERFORMANCE

Frequency MHz	PSACR (min)	ACR (min)	Attenuation (max)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)	TCL (min)	PSANEXT (min)	PSAACRF (min)
1	70.2	72.2	2.1	72.3	74.3	64.8	67.8	20.0	40.0	67.0	67.0
4	59.5	61.5	3.8	63.3	65.3	52.8	55.8	23.0	40.0	67.0	66.2
8	53.5	55.5	5.3	58.8	60.8	46.7	49.7	24.5	40.0	67.0	60.1
10	51.4	53.4	5.9	57.3	59.3	44.8	47.8	25.0	40.0	67.0	58.2
16	46.7	48.7	7.5	54.2	56.2	40.7	43.7	25.0	38.0	67.0	54.1
20	44.4	46.4	8.4	52.8	54.8	38.8	41.8	25.0	37.0	67.0	52.2
25	41.9	43.9	9.4	51.3	53.3	36.8	39.8	24.3	36.0	67.0	50.2
31.25	39.4	41.4	10.5	49.9	51.9	34.9	37.9	23.6	35.1	67.0	48.3
62.5	30.4	32.4	15.0	45.4	47.4	28.9	31.9	21.5	32.0	65.6	42.3
100	23.2	25.2	19.1	42.3	44.3	24.8	27.8	20.1	30.0	62.5	38.2
200	10.2	12.2	27.6	37.8	39.8	18.8	21.8	18.0	27.0	58.0	32.2
250	5.2	7.2	31.1	36.3	38.3	16.8	19.8	17.3	26.0	56.5	30.2
300	0.8	2.8	34.3	35.1	37.1	15.3	18.3	16.8	25.2	55.3	28.7
400	—	—	40.1	33.3	35.3	12.8	15.8	15.9	24.0	53.5	26.2
500	—	—	45.3	31.8	33.8	10.8	13.8	15.2	23.0	52.0	24.2

Note: Values are expressed in dB per 100m (328 ft.) length.

GenSPEED® 10,000 CATEGORY 6a CROSS-SECTION



ELECTRICAL CHARACTERISTICS

DC Resistance (max) Ohms/100m (328ft) @ 20°C	9.38
DC Resistance Unbalance (max) Individual Pair %	4.0
Delay Skew (max) ns/100m	35
Nom. Velocity of Propagation % Speed of Light	70
Characteristic Impedance Frequency (f): 1-500 MHz	Ohms 100 ± 15