TERAYON TJ 700x CABLE MODEM PLATFORM

Terayon's TJ 700x series of cable modems are a cable operator's future-proof solution for delivering high-speed Internet access today, and for delivering new services tomorrow.

The TJ 700x family of cable modem platforms. DOCSIS 2.0 certified, the new TJ 700x series provides cable operators with a competitive edge for delivering advanced broadband services today and well into the future.

MATURE, PROVEN PRODUCTS

Terayon, the leader in DOCSIS®2.0 technology, was the first to offer an end-to-end DOCSIS 2.0 certified/qualified solution. The DOCSIS 2.0 certified TJ 715x represents Terayon's third generation of DOCSIS 2.0 modems and is the modem most widely deployed on cable systems running in DOCSIS 2.0 mode. Terayon's DOCSIS 2.0 products have been rigorously tested in both the field and laboratory for performance and to assure interoperability.

FUTURE-PROOF SOLUTION

Cable operators can deploy TJ 700x modems system-wide with the assurance that they will not become obsolete as operators upgrade from DOCSIS 1.0 to DOCSIS 1.1 and 2.0. The TJ 700x will grow with a system allowing operators to generate new revenue streams by offering services that require more upstream bandwidth such as on-line gaming, peer-to-peer file sharing and video teleconferencing.

INNOVATION REDUCES TOTAL COST OF OWNERSHIP

The TJ 700x modems are equipped with innovative features for easy installation. An embedded web page provides trouble-shooting tools that speed the identification of potential issues.

FEATURES	BENEFITS
"Plug and play" USB connections	Simplified installation
10/100 BaseT Ethernet	Enhanced network flexibility
DOCSIS 2.0 Technology	Increased upstream capacity and high immunity to noise
LEDs - Power, Cable, PC, Data, Test	Immediate visual status reporting
Lightning protection	Resistant to electrical surges
Desk or wall mountable	Space saving and easily accessible
SNMP management via DOCSIS MIBs	Remote administration
IGMP Proxy	Supports multicast services
Supports up to 32 PCs	Ideal for office networks
Filtering via Ethernet, LLC and IP, operator configurable	Provides secure, shared Internet access
Embedded web server	Easy and powerful troubleshooting for subscriber, customer service representative and/or field technician
24/7/365 Technical Support	A trusted partnership
Self-installable	Reduced technical support

The TJ 715x offers easy-to-use trouble-shooting tools via web pages that are embedded in every modem.

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	North America TJ 715x/TJ 716x	Europe TJ 720x/TJ 721x	Japan TJ 735x/TJ 736x
CERTIFICATION			
	DOCSIS 1.1, 2.0	Euro-DOCSIS 1.0, 1.1 (TJ 720x) Euro-DOCSIS 2.0 (TJ 721x)	
PHYSICAL			
Client PC	10/100Base-T, RJ-45 USB "B" type (USB can be disabled)	10/100Base-T, RJ-45 USB "B" type (USB can be disabled)	10/100Base-T, RJ-45
CATV network	Female "F" type connector, 360° threaded for all models		
LEDs	Power, Cable, PC, Data, Test	Power, Cable, PC, Data, Test	Power, Cable, PC, Data, Test
Dimensions - Modem	5.6" wide (14.20 cm); 6.70" deep (17.02 cm) including length of RF connectors; 1.58" high (4.01 cm)		
INSTALLATION			
	Desktop: vertical or horizontal orientation Wall: vertical orientation		
PRODUCT WARRANTY			
	1 year	1 year	1 year
OPERATING REQUIREMENT			
Operating temperature	32° to 104° F (0° to 40° C)	32° to 104° F (0° to 40° C)	32° to 104° F (0° to 40° C)
Storage temperature	-4° to 140° F (-20° to 60° C)	-4° to 140° F (-20° to 60° C)	-4° to 140° F (-20° to 60° C)
Humidity	10%-95% non-condensing	10%-95% non-condensing	10%-95% non-condensing
Electrical	10-12V, 750 mA	10-12V, 750 mA	10-12V, 750 mA
NETWORK MANAGEMENT			
	TJ 700 modems can be managed via any SNMP-management platform		
DOWNSTREAM RF SPECIFICATION			
Modulation type	ITU-T J.83 Annex B	ITU-T J.83 Annex A	ITU-T J.83 Annex B
Channel information bit rate for 256 QAM	38.810701 Mbps	51.253961 Mbps	38.810701 Mbps
for 64-QAM	26.97035 Mbps	38.440471 Mbps	26.97035 Mbps
Channel bandwidth	6 MHz	8 MHz	6 MHz
Receive center frequency range	91-857 MHz (Standard, HRC, IRC channels)	112-858 MHz	115-857 MHz
Input level	-15 to +15 dBmV	+43 to +73 dBµV for 64 QAM +47 to +77 dBµV for 256 QAM	-15 to +15 dBmV
Input impedance	75 ohm	75 ohm	75 ohm
C/N (Es/No) for 10-8 BER 64 QAM, 10^{-8} BER@C/N	≥23.54 dB	≥25.5 dB	≥23.54 dB
256 QAM, 10^{-8} BER@C/N	≥30 dB (-6 to +15 dBmV)	≥31.5 dB (+54 to +77 dBµV)	≥30 dB (-6 to +15 dBmV)
256 QAM, 10^{-8} BER@C/N	≥33 dB (-15 to -6 dBmV)	≥34.5 dB (+47 to +54 dBµV)	≥33 dB (-15 to -6 dBmV)
UPSTREAM RF SPECIFICATION			
Modulation	QPSK, 8 QAM, 16 QAM, 32 QAM, 64 QAM and 128 QAM for all models		
Channel access	TDMA, A-TDMA, S-CDMA	TDMA, A-TDMA, S-CDMA	TDMA, A-TDMA, S-CDMA
Channel transmission rate	320 kbps - 30.72 Mbps	320 kbps - 30.72 Mbps	320 kbps - 30.72 Mbps
Channel symbol rate	160 kSps - 5.12 MSps	160 kSps - 5.12 MSps	160 kSps - 5.12 MSps
Channel bandwidth	200 kHz - 6.4 MHz	200 kHz - 6.4 MHz	200 kHz - 6.4 MHz
Transmit frequency range	5 - 42 MHz	5 - 65 MHz	5 - 55 MHz
Output power	+8 to +58 dBmV	+68 to +118 dBµV	+8 to +58 dBmV
NETWORK LAYER			
Downstream performance	38 Mbps	50 Mbps	38 Mbps
Upstream performance	29 Mbps	29 Mbps	29 Mbps
Upstream concatenation	Supported	Supported	Supported
Upstream rate limiting	Supported using Token Bucket algorithm for all models		
SNMP	DOCSIS MIBs	DOCSIS MIBs	DOCSIS MIBs
IGMP	IGMP Proxy to support multicast services for all models		
CPE devices supported	32	32	32
Filtering	Ethernet, LLC and IP filtering, operator-configurable for all models		
IP Filtering Rules	32	32	32
LLC Filtering Rules	32	32	32
REGULATORY SPECIFICATIONS			
Safety Compliance	EN 60950, TUV, UL 1950, CSA 950 CE Mark		
EMC	FCC Class B, CISPR 22 Class B, VCCI Class B, BS EN55024, EN6 1000-3-2, EN6 100-3-3, BS EN55022 Class B, ICES-003 Class B. AS/NZS 3548 CE MARK		

About Terayon

As the world's leading provider of innovative digital video networking applications and home access solutions, Terayon accelerates the evolution to the all-digital network. Headquartered in Santa Clara, California, Terayon has sales and support offices worldwide, and is traded on the NASDAQ under the symbol TERN. Terayon can be found on the web at www.terayon.com.