

TC Systems, Inc.
P.S.C. No. 7 -- Telephone
Access Services
Effective Date: December 23, 2011

Section 3
Leaf No. 3
Revision: 0

SECTION 3 – DEDICATED ACCESS SERVICES

3.1 Dedicated Access Services (Cont'd)

3.1.4 DS1 Service (1.544 Mbps)

DS1 Service is composed of digital channels provided at 1.544 Mbps for the transmission of one-way and two-way communications. Interconnections to such channels and equipment interfacing to such channels shall meet the following technical characteristics:

Line Rate:	1.544 Mbps \pm 130 ppm
Line Code:	AMI: bipolar with at least 12.5% average ones density and no more than 15 consecutive zeros; -- or -- B8ZS: no minimum density of ones and no consecutive zeros limit.
Test Load:	100 ohms resistance.
Pulse Shape:	The pulse amplitude shall be between 2.4 and 3.6 volts.
Power Levels:	For an all-ones transmitted pattern, the power in a 2 KHz band about 772 KHz shall be 12.4-18.0 dBm and the power in a 2 KHz band about 1544 KHz shall be at least 29 dB below that in a 2 KHz band about 771 KHz.
Pulse Imbalance:	There shall be less than 0.5 dB difference between the total power of the positive pulses and the negative pulses.

NOTES:

1. The CCITT specification is \pm 50 ppm.
2. Recommended for new equipment: The power in a 2 KHz band about 772 KHz shall be 12.6-17.9 dBm. CCITT requirements: The power in a 3 KHz band about 772 KHz is 12.0-19.0 dBm.
3. CCITT requirements: The power in a 3 KHz band about 1544 KHz shall be at least 25 dB below that in a 3 KHz band about 772 KHz.

Digital channels at 1.544 Mbps will be provided in one of the following configurations, as specified by the customer:

Unframed DS1: A DS1 signal that does not follow standard framing formats of 192 bits for data and a 193 Rd bit for framing. An unframed DS1 cannot be synchronized to the network and is not performance monitored.

Issued by: Carol E. Paulsen, Director Regulatory, Dallas, Texas 75202