

Abbreviations

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| AAL | : ATM Adaptation Layer |
| ADM | : Add-Drop Multiplexer. |
| ATM | : Asynchronous Transfer Mode. |
| AUU | : ATM-user-to- ATM-user. |
| BCC | : Bellcore Client Companies. |
| BD | : Band Division method. |
| B-ICI | : Broadband InterCarrier Interface. |
| BIP | : Bit Interleaved Parity |
| B-ISDN | : Broadband Integrated Services Digital Network. |
| B-NT | : Brodband Network Terminator. |
| CBR | : Constant Bit Rate. |
| CCITT | : Consultative Committee on International Telegraph and Telephone. |
| CLP | : Cell Loss Priority. |
| CLR | : Cell Loss Ratio. |
| CN | : Customer Network. |
| CS | : Convergence Sublayer. |
| DS-x | : Digital Signal, level x (x = 0,1,2,3). |
| EIA-232 | : Electronics Industry Association - 232. |
| FCS | : Frame Check Sequence. |
| FIFO | : First In First Out. |
| GFC | : Generic Flow Control. |
| GOB | : Group Of Block. |
| HEC | : Header Error Check. |
| ISD | : Integrated Services Digital. |
| ISO | : International Organization for Standardization. |
| ITU | : International Telecommunications Union. CCITT's parent standards body and replacement name. |
| JPEG | : Joint Photographic Experts Group. |
| Kbps | : Kilobits per second (10^3). |
| LAN | : Local Area Network. |
| LANE | : LAN Emulation. |
| LOH | : Line Overhead. |
| MAC | : Medium Access Control. |
| MAN | : Metropolitan Area Network. |
| Mbps | : Megabits per second (10^6). |
| MBR | : Mean Bit Rate. |
| MBS | : Maximum Buffer Size in cells. |
| MPEG | : Motion Picture Experts Group. |
| MSB | : Most Significant Bit. |

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| MWT | : Mean Waiting Time in cell time. |
| NT | : Network Termination. |
| NNI | : Network-Network Interface. |
| OAM | : Operations Administration and Maintenance. |
| OC | : Optical Carrier. |
| OSI | : Open System Interface. |
| PBR | : Peak Bit Rate. |
| PBX | : Private Branch eXchange. |
| PCM | : Pulse Code Modulation |
| PDU | : Packet Data Unit. |
| PHY | : PHYSical layer. |
| PM | : Physical Medium. |
| POH | : Path OverHead. |
| PQC | : Priority Queue Control method. |
| PRM | : Protocol Reference Model. |
| PT | : Payload Type. |
| PTI | : Payload Type Identifier. |
| PVC | : Permanent Virtual Circuit. Similar to a leased line. |
| PVCC | : Permanent Virtual Channel Connection. |
| PVPC | : Permanent Virtual Path Connection. |
| QoS | : Quality of Service. |
| SAP | : Service Access Point. |
| SAR | : Segmentation And Reassembly. |
| SARPVP | : SONET/ATM Ring architecture using Point-to-point VP's. |
| SDH | : Synchronous Digital Hierarchy. |
| SDU | : Service Data Unit. |
| SMDS | : Switched Multimegabit Data Service. |
| SOH | : Section Overhead. |
| SONET | : Synchronous Optical NETwork. |
| SPE | : Synchronous Payload Environment. |
| STM | : Synchronous Transport Mode. |
| STS-3c | : Synchronous Transport System-level 3. |
| TA | : Terminal Adapter. |
| TC | : Transmission Control. |
| TCP | : Transmission Control Protocol. |
| TCS | : Transmission Convergence Sublayer. |
| TDM | : Time Division Multiplexing. |
| TEn | : Terminal Equipment type n (n = 1,2). |
| TSA | : Time Slot Assignment. |
| TSI | : Time Slot Interchange. |
| UBR | : Unspecified Bit Rate. |

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| UNI | : User-Network Interfaces. |
| VBR | : Variable Bit Rate. |
| VC | : Virtual Channel. |
| VCC | : Virtual Channel Connection |
| VCI | : Virtual Channel Identifier. |
| VP | : Virtual Path. |
| VPC | : Virtual Path Connection. |
| VPI | : Virtual Path Identifier. |
| WAN | : Wide Area Network |

List of Symbols

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| D | : Number of cells of data traffic per cycle. |
| F_s | : Transmission Frame size in cells = 44 cells. |
| GR_{da} | : Data generated rate in cell/ms. |
| GR_t | : Average transit rate in cell/ms |
| GR_{vi} | : Video generated rate of each source in cell/ms. |
| GR_{vo} | : Voice generated rate of each source in cell/ms. |
| M | : Ratio of video cells per cycle. |
| M_{siz} | : Message Size in cells |
| m | : Mean arrival time of data traffic. |
| N | : Ratio of voice cells per cycle. |
| N_{vi} | : Number of Video sources. |
| N_{vo} | : Number of Voice sources. |
| OL | : Total Offered Load |
| OL_{da} | : Data offered load. |
| OL_{tr} | : Transit offered load. |
| OL_{vi} | : Video offered load. |
| OL_{vo} | : Voice offered load. |
| R_T | : Transmission rate in cell/ms. |
| R_{vi} | : Video encoding rate for each source, in Mbps. |
| R_{vo} | : Voice PCM encoding rate for each source in Kbps. |
| t_f | : Transmission frame time = 0.125 ms. |
| TP | : Total Throughput per Node. |
| TP_{da} | : Data Throughput per Node. |
| TP_{vi} | : Video Throughput per Node. |
| TP_{vo} | : Voice Throughput per Node. |
| U_{da} | : Data Utilization |
| U_{vi} | : Video Utilization |
| U_{vo} | : Voice Utilization |