

Multipoint Unit TA

Index

	Page
1. Scope and Objectives.....	1-1
1.1 Initial Application for Television Broadcasters.....	1-1
1.2 How the Multipoint Unit Interacts with the DS3 Signal.....	1-2
1.3 Subsequent Applications.....	1-3
1.4 Relationship to Digital Cross Connect Systems (DCS 3-3).....	1-4
1.5 Organization of this Document.....	1-5
1.6 Related Documents.....	1-5
2. Customer-Controllable Multipoint Network Features.....	2-1
2.1 Switched Selection of Remotes to Receive.....	2-1
2.2 Switched Selection of Remote to Send.....	2-1
2.3 Change of Control (Takeover/Takeback).....	2-1
2.4 Addressable Loop-back/Thru Test at MU.....	2-2
2.5 Addressable Loop-back/Thru Test at Remote.....	2-2
2.6 Splitting Into Regions.....	2-3
2.7 Multicast Switching Between Regions.....	2-3
2.8 Graceful Growth/Unassigned Ports.....	2-4
2.9 Parity and FEBE Polling.....	2-4
2.10 Control Security Considerations.....	2-5
2.11 Order Wire.....	2-5
2.12 Teleconferencing.....	2-7
2.13 Miscellaneous Feature Considerations (Discarded).....	2-7
2.13.1 Double Thickness Tree.....	2-7
2.13.2 Double Broadcast Port Multipoint Unit.....	2-8
2.13.3 Remote-to-Remote Loopbacks for Separating Ports Between Regions.....	2-8
3. Multipoint Unit Requirements.....	3-1
3.1 Synchronization.....	3-1
3.2 Broadcast Direction.....	3-1
3.3 Return Direction.....	3-3
3.4 Delay.....	3-4

4. Control Channel Requirements .....	4-1
4.1 Control Channel Bits in DS3 Bit Stream.....	4-1
4.2 Access to the Control Channel at the Master Station and/or Alternate Master Station.....	4-1
4.3 Control of DS1 Terminal.....	4-1
4.4 Control Channel Ends at Analog Extensions .....	4-1
5. Control Channel Communications Protocol Requirements .....	5-1
5.1 Network Control Needs.....	5-1
5.2 Network Control Elements .....	5-2
5.3 Multipoint Unit Commands .....	5-5
5.4 Video Terminal Commands .....	5-8
5.5 Errored Responses .....	5-9
5.5.1 Negative Acknowledgement (NAK).....	5-9
5.5.2 Incorrect Response to MC.....	5-9
5.5.3 No Response.....	5-10
5.6 Station Addresses .....	5-14
5.7 Commands.....	5-14
5.8 Alarms .....	5-14
6. Order Wire Requirements.....	6-1
6.1 Order Wire Bits in the DS3 Bit Stream .....	6-1
6.2 Quality of 6-Bit PCM.....	6-1
6.3 Idle Code.....	6-1
7. Telephone Company Installation, Maintenance and Test Requirements .....	7-1
7.1 Need for Networking Test Set .....	7-1
7.2 Non-interference in Working Multipoint Circuits.....	7-1
8. Quality and Reliability Considerations (subject to review) .....	8-1
8.1 Reliability Objectives .....	8-1
8.2 Redundancy of Individual Units Not Required.....	8-1
8.3 Redundancy of Common Units Required .....	8-1
9. Physical Design Considerations.....	9-1
9.1 Central Office Use .....	9-1
9.2 Customer Premises Use .....	9-1
9.3 Integrated Multipoint Units.....	9-1
10. References .....	10-1

Figures 1 - 11