



Ultra Electronics

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AN/FCC-100 and CV-Converter Training Course Agenda **DAY 1**

Introduction	<ul style="list-style-type: none"> ▪ Introductions and Facility Security Requirements ▪ Basic Communications <ul style="list-style-type: none"> ○ Synchronous, Asynchronous, Isochronous, Diphas, PCM, CELP, CVSD, ADPCM, MUX ○ Networks, T1/E1 ○ DTE vs. DCE, Balanced vs. Unbalanced ○ Mark Sense ○ RS-232, RS-423A, RS-449, V.35, MIL-188 ○ DNE to RS-530 Relationship Adapters ○ FXS/FXO, E&M
Hardware	<ul style="list-style-type: none"> ▪ Basic components of the AN/FCC-100 MUX ▪ Chassis, Rear Panel, Extended Rear Panel, Power Supplies, AC & DC Fan Assemblies, Operator's Panel ▪ Exercise 1 – Front panel controls and indicators
Circuit Cards	<ul style="list-style-type: none"> ▪ Interface, Mux/DeMux, Processor, Software versions and relationships ▪ Aggregate Carriers, Aggregate Drivers, Port Carriers, Sync, Async, Isoc, CDI, PCM, CVSD, Terminators, ADPCM, T-CDI, FXS, FXO, E&M, Voice Compression Modules ▪ Exercise 2 – Identification of AN/FCC-100 assemblies
Introduction to the Command Structure Tree (CST)	<ul style="list-style-type: none"> ▪ Seven modes of operation <ul style="list-style-type: none"> ○ Concept of Active, A, and B configurations ○ Activation ○ Status ○ Examine ○ Loopbacks and Loopback programming ○ Test ○ Unit
Configuration Menus	<ul style="list-style-type: none"> ▪ System, Ports, CAU ▪ System NRZ-Equirate, CDI-Equirate, NRZ Asymmetric with timing charts for each Aggregate Carrier ▪ Exercise 3 – Programming AN/FCC-100s back-to-back

DAY 2

Review	<ul style="list-style-type: none"> ▪ System cards and programming
Individual Port Programming	<ul style="list-style-type: none"> ▪ Synchronous ▪ Asynchronous ▪ Isochronous ▪ CDI ▪ PCM ▪ CVSD ▪ ADPCM ▪ T-CDI ▪ FXS ▪ FXO ▪ E&M ▪ CAU
Exercises	<ul style="list-style-type: none"> ▪ Individual Port programming exercises (using Customer configurations)

DAY 3

AN/FCC-100 Miscellaneous Topics	<ul style="list-style-type: none"> ▪ Bandwidth calculations ▪ Exercise 4 – determining bandwidth requirements ▪ Control Terminal ▪ Password and Override ▪ SNMP ▪ Types of Configurations
Troubleshooting	<ul style="list-style-type: none"> ▪ Preventative Maintenance ▪ Diagnostics ▪ Loopbacks ▪ Modular Unit Design ▪ Error Messages ▪ BIT Testing ▪ Troubleshooting Flowcharts, Indicators, and Test Points
CV Converter Series	<ul style="list-style-type: none"> ▪ Overview ▪ Configuration ▪ Applications ▪ Exercises
Final Test	<ul style="list-style-type: none"> ▪ Hands on End-of-Course test ▪ Critique and Adjourn