

TABLE OF CONTENTS**CHAPTER 1 ID LABEL/LOCATION INFO**

1.1 Rear Panel FCC Label	1-1
1.2 Rear Panel Manufacturer's Label	1-1
1.3 Rear view, Axcera-LHV60ATD Transmitter w/FCC Label	1-2

CHAPTER 2 EXTERNAL PHOTOS

2.1 Front view, Axcera-LHV60ATD Transmitter	2-1
2.2 Rear view, Axcera-LHV60ATD Transmitter	2-2
2.3 Side view, Band-pass Filter	2-3
2.4 Front view, External Exciter Digital Modulator	2-4
2.5 Rear view, External Exciter Digital Modulator	2-4
2.6 Top view, External Exciter Digital Modulator	2-4

CHAPTER 3 SCHEMATICS**CHAPTER 4 TEST REPORT**

4.1 RF Power Measurements	4-1
4.2 Modulation Characteristics	4-2
4.3 Error Vector Magnitude (EVM) and Signal to Noise Ratio (SNR)	4-3
4.4 Frequency Response and Group Delay	4-4
4.5 Peak to Average	4-5
4.6 Phase Noise	4-6
4.7 Occupied Bandwidth	4-7
4.8 Conducted Spurious Emissions	4-8
4.9 Radiated Emissions	4-16
4.10 Frequency Stability	4-18
4.10.1 Pilot Frequency Measurement	4-20
4.11 Test Equipment	4-21

CHAPTER 5 USER'S MANUAL**CHAPTER 6 INTERNAL PHOTOS**

6.1 Front view, Chassis Assembly	6-1
6.2 Side view, Exciter Upconverter Assembly	6-2
6.3 Side view, Exciter Downconverter Assembly	6-2
6.4 Side view, Control / Power Supply Assembly	6-3
6.5 Side view, Power Amplifier Assembly	6-3
6.6 Top view, External Exciter Digital Modulator	6-4

CHAPTER 7 PARTS LIST/TUNE-UP INFO

7.1 Parts List	7-1
7.2 Tune-up Information	7-1
7.2.1 Exciter Assembly	7-1
7.2.1.1 Upconverter Downconverter Adjustment	7-2
7.2.1.2 Forward Power Calibration	7-2
7.2.1.3 Reflected Power Calibration	7-2
7.2.2 Exciter Digital Modulator	7-3

7.2.3 Bandpass Filter Assembly	7-3
--------------------------------------	-----

CHAPTER 8 OPERATIONAL DESCRIPTION - MODEL Axcera-LHV60ATD

8.1 General Description	8-1
8.2 Technical Specifications.....	8-1
8.3 Performance Specifications	8-1
8.4 System Overview	8-2
8.4.1 Exciter Tray	8-2
8.4.1.1 Axciter – External Digital Modulator	8-2
8.4.1.2 Axciter Upconverter Module	8-3
8.4.1.3 Axciter Downconverter Module	8-3
8.4.1.4 Control & Monitoring / Power Supply Module	8-3
8.4.1.5 Power Amplifier Module	8-4
8.5 Control and Status	8-5
8.5.1 External Axciter Digital Modulator Tray	8-5
8.5.2 Exciter Tray.....	8-5
8.6 Input and Remote Connections	8-7
8.6.1 Remote Interface Connections	8-7
8.7 AC Input	8-7
8.7.1 Exciter Tray.....	8-7
8.8 System Operation	8-7
8.8.1 Principles of Operation	8-8

CHAPTER 9 CERTIFICATION OF TEST DATA

TRAK SYSTEMS MODEL 8821 DATASHEET	SHEET 1
TRAK SYSTEMS MODEL 8821 DATASHEET	SHEET 2
CRYSTEK CORP. DATASHEET	SHEET 1