

Automated Distortion Characterization and Information System (ADCS) Software Option

(This software ordered as a separate option)

What does it do? The Automated Distortion Characterization and Information System is an extension of the Matrix equipment control software that automatically makes RF measurements selected from the following: Cross Modulation (XMOD), Composite Triple Beat (CTB), Composite Second Order (CSO), Carrier to Noise (C/N), Discrete Second Order, Discrete Third Order Distortion. Measurements are made, and the test results and a profile describing the test conditions are saved in a database for later retrieval or reporting. A beat tabulation utility is included to calculate the frequencies at which 2nd and 3rd order products occur.

A set of reports is provided, but the user may modify these or add additional reports. The data can be transformed into a Microsoft Excel spreadsheet and automatically analyzed to highlight results not meeting user specifications.

- Benefits:**
- Up to 10 times faster than manually measuring, entering, tabulating, and analyzing distortion data. Improve testing productivity by a factor of 10.
 - Eliminates keying errors as compared to manual entry of data into a computer.
 - Eliminates the drudgery and fatigue of making repeated measurements.
 - Frees up personnel by providing unattended operation when performing a series of tests on a group of frequencies.
 - User customizable report, spreadsheet, and spectrum analyzer distortion measurement programs. Convenient beat calculator facility built in.
 - Rapid search and retrieval via database queries.
 - On-line context sensitive help and hardcopy documentation.

Customization: The software can be customized to your specific needs at additional cost.

This software, developed and maintained by Hye Level Software, Inc. may be ordered through either Hye Level Software, Inc. or Matrix Test Equipment, Inc.

A software license for one Matrix generator test station, user documentation, training (via telephone or at Matrix's facilities), installation, configuration, and operational support, plus software upgrades for one year.	\$6,000
Production Interface for production volume testing	\$2500

Discounts available for multiple systems at a given company location or campus. Annual upgrade subscriptions to provide software upgrades for each additional year: \$1,495

Ask for more detailed information, available on hard copy or electronically.

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MDIForm1 - [Distortion Measurement]

File Utilities Calc Beats Carrier Leveling Batch Test Setup Production Test Help

Select Distortion Tests

- Cross-Modulation (XMod)
- Composite Triple Beat (CTB)
- Composite 2nd Order (CSO)
- Carrier-to-Noise (C/N)
- For Digital Measurement
 - Carrier-Therm-Noise (CTN)
 - Carrier-Compos-Noise (CCN)
 - Carrier-Intermod-Noise (CIN)
- Discrete 2nd Order
- Discrete 3rd Order

Display Meas. Amplitude

Distortion Measurement

Test Identifier: 4 TestSubId: 4 Point Loc./Comment: 40 dbmv

Hide Test Selection

Pause Cancel

Save Results

Selected Chan. in CW

C/N Offset: Fixed Prompt Auto Detect

Single FRQ Distortion Automatic Distortion

Load Freq. Plan: (CHAN 55.25 - 547.25)

Select Plan for Dig Meas.

Test Channels and Results

Module	Freq.	Filter No.	XMD (FFT)	CTB Raw	CTB Cor	CTB Nflr	CSD abv-Raw	CSD abv-Cor	CSD blw-Raw	CSD blw-Cor	C/N	Noise Drop	CSD frq-abv	CSD Nflr-abv	CSD frq-blw	CSD Nflr-blw	Amplit. (dBm)	Fr
3	61.25	38	68.7	76.9	77.5	85.3	84.4	88.8	74.5	74.9	66.7	-1	62.00	85.1	59.99	85.3	-18.5	
3	61.25	38	68.9	77.0	77.7	85.4	84.3	88.6	74.2	74.6	66.7	0	62.00	84.9	60.00	85.2	-18.6	
33	277.25	30	70.8	68.5	68.6	84.3	81.3	84.3	73.3	73.7	65.5	0	278.00	84.1	276.00	84.1	-18.7	
39	313.25	42	70.9	66.9	66.9	83.8	80.5	83.5	72.1	72.4	65.0	0	314.00	83.4	312.00	83.5	-19.0	
42	331.25	42	65.6	63.5	63.5	86.0	80.6	84.2	72.7	73.0	65.1	0	332.50	83.5	320.00	83.6	-18.7	
61	445.25	61	68.0	69.0	69.0	84.0	81.1	85.4	72.1	72.4	65.4	0	446.50	83.8	444.00	83.2	-18.8	
78	547.25	78	69.0	67.0	67.0	85.6	81.5	85.8	72.2	72.5	66.0	0	548.50	84.0	546.00	83.0	-18.5	

Test Perf Channel Loading Noise Drop (dB) Batch Id Serial Num A123456

55.25-541.25/81chs Simulation! Data Not Valid

Select a Form

- Test Frequencies
- Test Profile
- Setup & Run Test
- Test Results

Test Profile

Setup & Run Test

Run Reports

RETURN

Help

A screen showing some of the control options and display of the test results as they are measured

Microsoft Excel

File Edit View Insert Format Tools Data Window Dist Anal Help

Arial 8

3demo.xls

FRQ	XMD(NCTA)	CTBL_COR	CTBU_COR	N-FLR	CSU_RAW	CSU_COR	CSU_FRQ	CSL_RAW	CSL_COR	CSL_FRQ	C/N	NSE_DRP	AMP(dBm)
1 Test Results for Test Ident No. 3													
2 Test: 3 Serial Number: 612931 Title: Test with DUT													
3 Date: Dec 11, 2001 Time: 12:26:13 PM Temp: Room Temp DataOrigin:													
4 Notes: Dwelling amp													
5													
6 Location: 77 chans and att= 25													
7 Level: 480 steps, att=25 TIR:													
9	61.25	62.9	73.5	73.6	89.2	86.8	91.1	62	73	73.2	60	71.2	-14.4
10	175.25	63.7	66.8	66.8	87.6	84.9	89.3	176	73.8	74	174	68.5	-15.6
11	277.25	64.7	63	63	86.7	82.9	85.5	278.5	70.4	70.5	276	68.4	-15.8
12	313.25	65.7	62	62	86.9	80.5	84.7	314.5	69.8	69.8	312	68.4	-15.4
13	Spec	63					70		70		65		
15	Min	62.9	62	62	86.7	80.5	81.7	62	69.8	69.8	60	68.4	-15.8
16	Max	65.7	73.5	73.6	89.2	86.8	91.1	314.5	73.8	74	312	71.2	-14.4
18 Location: with 60 ch plan & 40 dbmve @ output													
19 Level: 40 dbmve @ output TIR:													
21	61.25	70.9	79.2	80.4	85.3	84.8	89.1	62	74.6	75	60	67.1	-18.6
22	175.25	71.8	74.1	74.5	85	83.5	87.9	175.99	76.6	77.3	174	65.7	-18.4
23	277.25	71.9	70.9	71.1	84.4	82.7	87.1	278.5	77.3	78.2	276	65.8	-18.5
24	313.25	72.4	69.5	69.6	83.8	80.9	84.5	314	78.3	79.8	312	65.2	-18.8
25	Spec	63					70		70		65		
27	Min	70.9	69.5	69.6	83.8	80.9	84.5	62	74.6	75	60	65.2	-18.8
28	Max	72.4	79.2	80.4	85.3	84.8	89.1	314	78.3	79.8	312	67.1	-18.4

Sheet1

An automatically generated spreadsheet from the measured test results in the database.