



MOTOROLA

Integrated Information Systems Group

**SUPPLEMENTAL DATA
FOR TEST REPORT**

#91007-00197-01

***FlexPass™* Serial Mid-Range Reader**

FCC ID: E9USER610

AC CONDUCTED EMISSIONS

The Motorola SSG EMC/TEMPEST
Laboratory is accredited through the



NVLAP Lab Code 100405-0

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PURPOSE:

The TCB has requested that AC Conducted Emissions compliance be verified as part of the Low Power Transmitter approval under Part 15, Subpart C. The reference was to Section 15.207 (d), which states that unless the device is battery powered, it must comply with the AC line conducted requirements. The device operates from 5 – 14 Vdc regulated power. The device is not furnished with any specific AC-DC adapter and most likely would be powered by a remotely located linear power supply.

TEST METHOD:

The test methods of ANSI 63.4 were used for performing the tests. A generic AC-DC Adapter manufactured by APX, Model EPA-203D-1, was used to measure the AC conducted emissions since no specific source has been defined. The AC-DC power source provided +12 Vdc to the Serial 610. A Rohde & Schwarz EMI Receiver System was used to measure the conducted emissions through a Solar Dual Line Impedance Stabilization Network (LISN).

The AC Conducted Emissions Test Setup photos are shown as Figures 1 and 2.

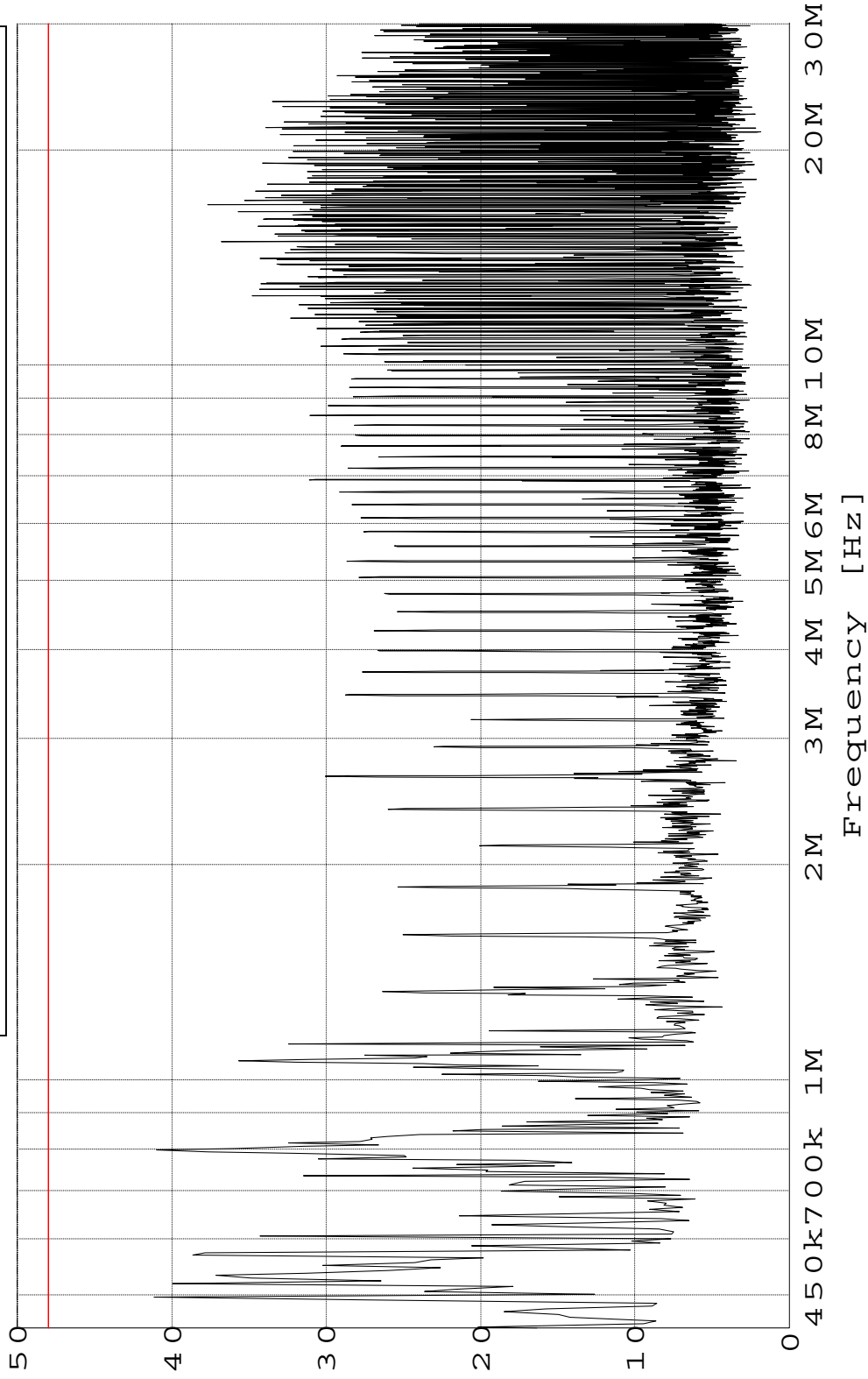
Test Equipment Nomenclature	Motorola Item Number	Manufacturer	Model Number	Cal. Date	Cal. Due
Line Impedance Stabilization Network, Dual	T52419	Solar	8012-50-R-24-BNC	02/07/01	02/28/02
Transient Limiter	HP3107A03138	Hewlett-Packard	11947A	CBT	CBT
Software	N/A	Rohde & Schwarz	ES-K1.6	NCR	NCR
Firmware	N/A	Rohde & Schwarz	F-CPU 02.8	NCR	NCR
Firmware	N/A	Rohde & Schwarz	G-CPU 02.8	NCR	NCR
Firmware	N/A	Rohde & Schwarz	M-CPU 02.9	NCR	NCR
EMI Receiver System	G53133	Rohde & Schwarz	ESMI	10/09/00	10/31/01

TEST RESULTS:

The Serial 610 complies with the AC Conducted Emission requirements and the scans are shown in the subsequent pages. The max peak readings were below the Part 15 AC Conducted Limits per 15.207. The emission at 469.5 kHz was re-measured using a Quasi-Peak detector since it was the worst-case level and close to the limit. The QP reading measured approximately 32.39 dBuV. This lower frequency noise between 450 kHz and 1 MHz was mostly due to the AC/DC adapter as compared to the DC Conducted Emissions scans performed per the ETSI EN 300 330 specification for CE compliance.

Serial 610 Conducted Emissions - 120VAC Hi (Max Peak)
w/APX AC-DC power adapter; Model No. EPA-203D-1

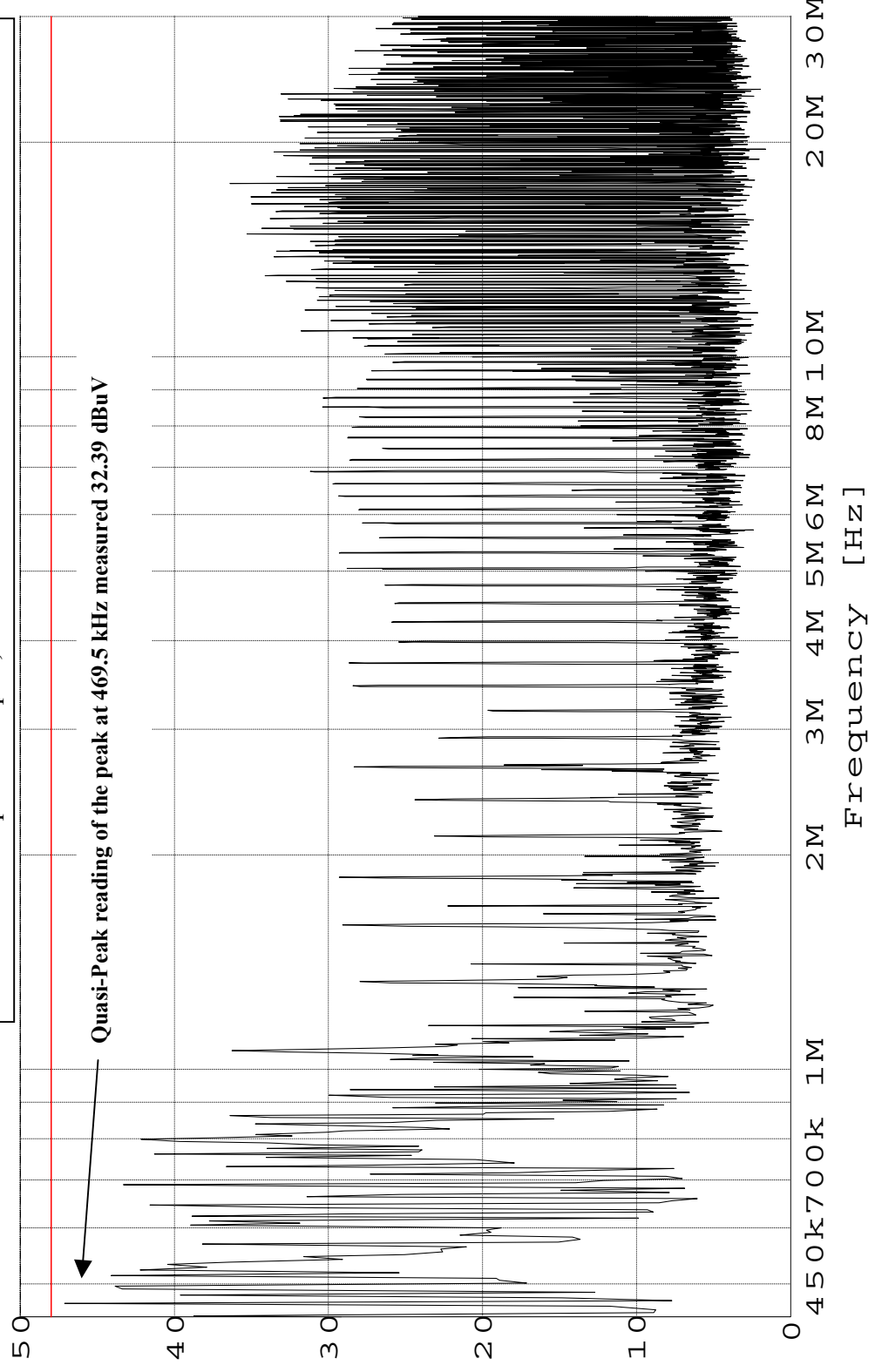
Level [dB μ V]



— MES Serial 610 +AC APX Serial 610 w/APX 12V Supp
— LIM FCC Cond. Class B

Serial 610 Conducted Emissions - 120VAC Return (Max Peak)
w/APX AC-DC power adapter; Model No. EPA-203D-1

Level [dB μ V]



— MES Serial 610 AC Rt APX Serial 610 w/APX 12V Supp
— LIM FCC Cond. Class B



Figure 1 - AC Conducted Emissions Test Setup Photo

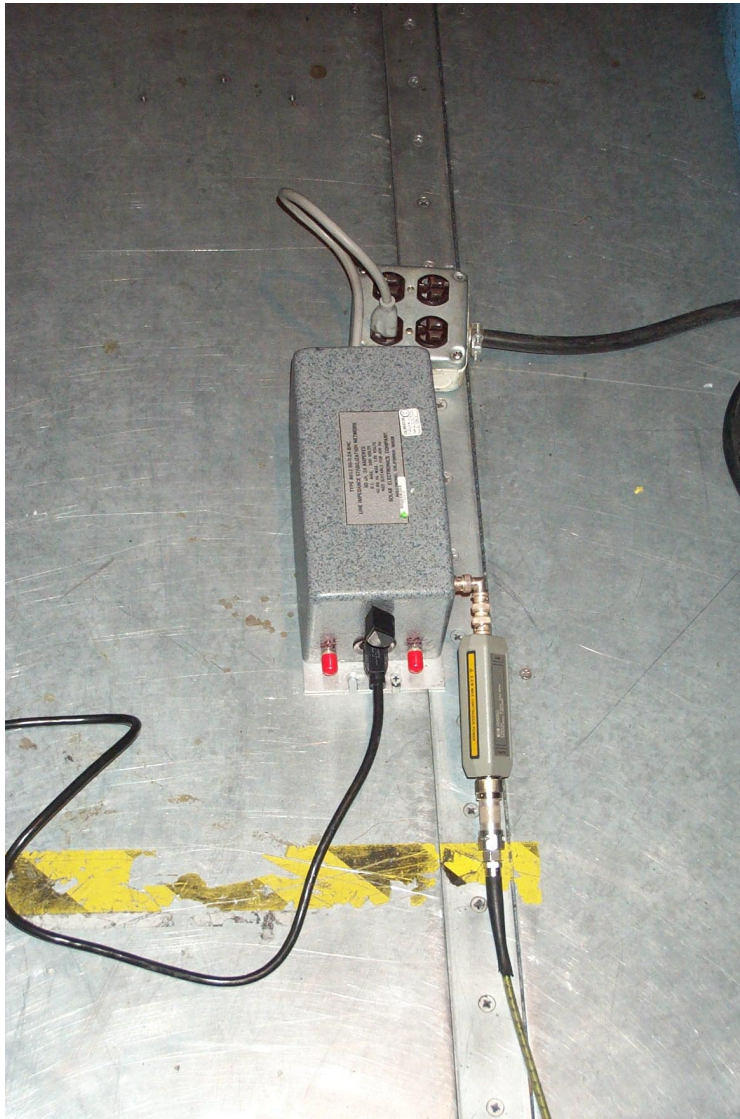


Figure 2 - AC Conducted Emissions Test Setup Photo (LISN)