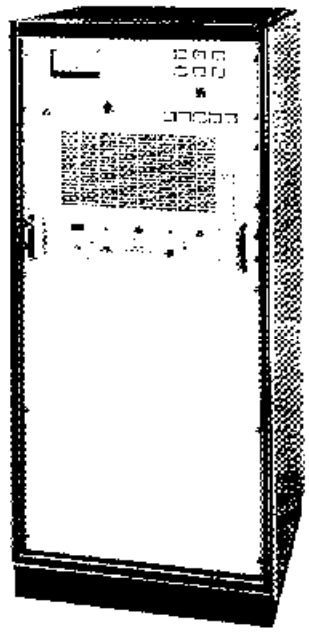
BROADBAND POWER AMPLIFIERS



M400 SERIES

MODEL	POWER GAIN	POWER OUTPUT	FREQUENCY RANGE	WEIGHT (lb)	POWER REQUIREMENTS
402	50 dB	100 W	.01-220 MHz	260	120/240 VAC
404	60 dB	400 W	.01-220 MHz	375	208 VAC 3 Phase
406	65 dB	1 KW	.01-220 MHz	500	208 VAC 3 Phase
410	68 dB	2 KW	.01-220 MHz	500	208 VAC 3 Phase
469	70 dB	5 KW	1-100 MHz	1800	208 VAC 65 KVA
489	74 dB	15 KW	1-100 MHz	2600	208 VAC 150 KVA

APPLICATIONS

- RFI/EMI Susceptibility testing
- NMR, ENDOR Spectroscopy
- Broadband Communications
- Component and Material Testing
- Biological Research
- EMP Simulation
- Laboratory High-Level Power Source
- Calibration and Instrumentation

Broadband power amplifiers call for special experience in wideband technology to provide maximum bandwidth with minimum variation in gain. IFI applies this know-how to a full line of broadband power amplifiers with power output from 15 W to 15 KW. Most models have sufficient power gain to provide full rated output power when driven by a signal generator, and instantly deliver the bandwidth required for the most demanding applications. High quality, rugged construction provides trouble-free operation, even under the most adverse operating conditions. All IFI Power Amplifiers are unconditionally stable and will operate into any load impedance from a short to open circuit; internal protection circuits prevent damage to final output stages and all power supplies are fully protected. Broadband design techniques, which IFI pioneered, permit operation over each amplifier's full frequency range with no tuning or adjustments.

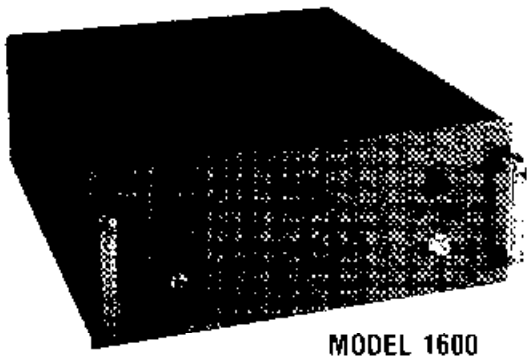
The 400 Series consists of medium and high power broadband amplifiers designed for continuous operation, conservatively rated and built to outperform most general purpose power amplifiers.

The 1600 and 5300 Series of Solid-State power amplifiers utilize rugged, state-of-the-art design techniques to provide efficient and reliable operation. Unconditionally stable output is standard, and all models are fully protected against damage due to severe variations in load impedance.

Most IFI broadband Power Amplifiers include remote leveling controls for sophisticated field leveling systems as standard equipment. Full compatibility with other IFI products enable the systems configurator to easily upgrade with a minimum of expense.

M1600 SERIES SOLID-STATE POWER AMPLIFIERS

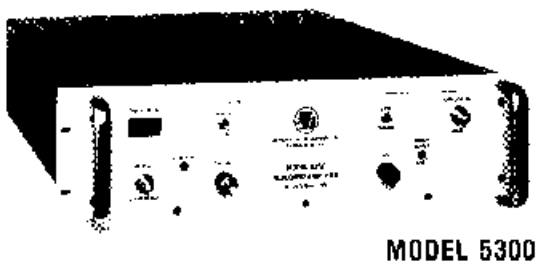
MODEL	POWER GAIN	POWER OUTPUT	FREQUENCY RANGE	WEIGHT (lb)	POWER REQUIREMENTS
1600	55 dB	130 W	0.5-35 MHz	50	120/240 VAC 800 VA
1610	60 dB	500 W	0.5-35 MHz	140	120/240 VAC 2 KVA
1660	40 dB	5 W	0.5-50 MHz	15	150/240 VAC 70 VA
1670	55 dB	35 W	0.5-35 MHz	25	120/240 VAC 275 VA
1680	55 dB	70 W	0.5-35 MHz	40	120/240 VAC 500 VA
1690	57 dB	150 W	0.5-35 MHz	40	120/240 VAC 900 VA
3220	63 dB	1 KW	0.5-35 MHz	300	240 VAC 4 KVA



MODEL 1600

M5300 SERIES

MODEL	POWER GAIN	POWER OUTPUT	FREQUENCY RANGE	WEIGHT (lb)	POWER REQUIREMENTS
5300	46 dB	15 W	.01-250 MHz	30	120/240 VAC



MODEL 5300

The high powered leader in broadband amplifiers

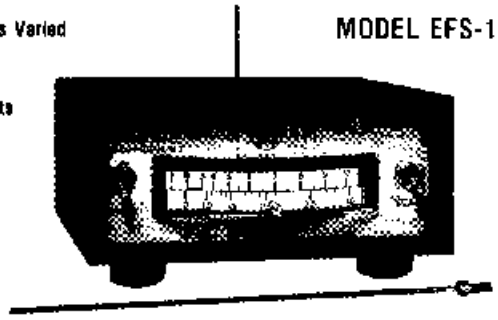
EMC/SUSCEPTIBILITY TEST SYSTEMS

E-Field Leveling Systems

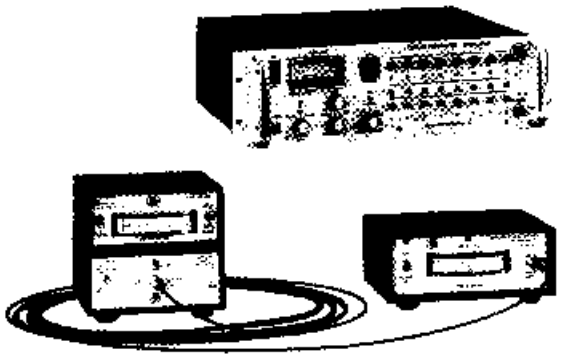
IFI provides the components for a sophisticated E-Field leveling system to meet the requirements of many swept field measurement applications. The LPA-2 is a microprocessor-controlled Leveling Preamplifier that permits up to eight Field Sensors to be used in a closed-loop leveling system. Providing up to 40 dB of gain control, the LPA-2 can perform complex calculations based on inout from E-Field sensors and vary the gain of a power source to maintain a constant field. The user can select individual channel inputs and specify upper control limits on each channel. Fully compatible with all EFS series of E-Field Sensors, the LPA-2 can be a powerful tool for screen room or test chamber susceptibility testing.

- **Maintain a Constant Field as Frequency is Varied**
- **Closed Loop System Performance**
- **Fully Compatible with Existing IFI Products**
- **Central Controller for All RFI/EMI Testing**

MODEL EFS-1



MODEL LPA-2



Precision E-Field Sensors

EFS-1 . . . Broadband (10 kHz to 250 MHz) E-field sensor. No tuning or adjustments. Direct E field readout from 1 to 300 Volts/Meter.

EFS-2 . . . All the features of the EFS-1, with the additional capability of repetitive pulse peak value measurements for pulse widths greater than 1 microsecond. Includes rechargable ni-cad battery supply.

EFS-3 . . . A monopulse version of the EFS-2, incorporating all of its features, plus the ability to measure the peak value of a single pulse, using a unique peak detector technique.

EFS

The EFS Series consists of highly versatile, low cost test instruments for measurement of electric fields from VLF to VHF. No tuning, bandswitching or adjustments are required. All EFS indicators are calibrated directly in Volts/Meter for direct readout of E-field levels. Their small size allows positioning anywhere in the field under test with negligible effects. In applications where remote readout is required, an optional LMT Light Modulator Transmitter provides a non-conductive fiberoptic link to the LDI Light Demodulator Indicator, which will replicate field measurements at a distance from the sensor.

TEM MODE TEST CHAMBER

Originally conceived at the National Bureau of Standards, The Crawford Cell consists of a section of rectangular transmission line, operating in the transverse electromagnetic mode (TEM). The cell is tapered at each end to a transition section that includes standard coaxial connectors. Precision design and construction provides accurate field measurements within ± 1 dB, while maintaining a 50 ohm impedance at both ends of the cell.

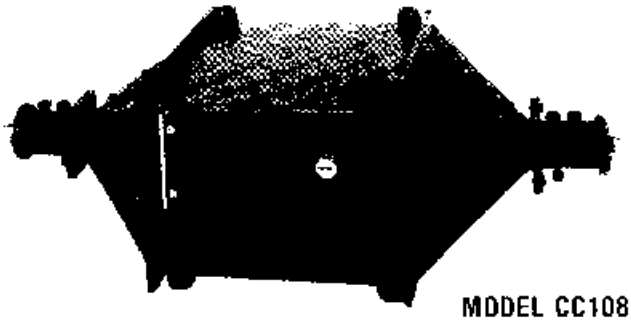
Each cell is equipped with a hinged access door that provides clearance for objects up to the maximum size appropriate for each cell. Additional access ports are included for installation of test probes or connectors.

The F. Crawford Cell offers an efficient means of accurate and broadband field measurement and testing.

MODEL	FREQUENCY RANGE	CELL SIZE, inches (outer dimensions)	SEPTUM WIDTH	ACCESS DOOR SIZE
CC101	DC—100 MHz	142 x 73 x 51	54.0	30.5 x 18
CC101.5	DC—150 MHz	104 x 50 x 34	36.0	16 x 10
CC102	DC—200 MHz	77 x 38 x 26	27.0	13 x 8
CC103	DC—300 MHz	54 x 26 x 18	17.8	8.5 x 6.5
CC104	DC—400 MHz	42 x 20 x 14	13.4	6 x 5
CC108	DC—800 MHz	24 x 11 x 8	6.5	5 x 2.3
CC110	DC—1000 MHz	18 x 8 x 5	5.2	3 x 2

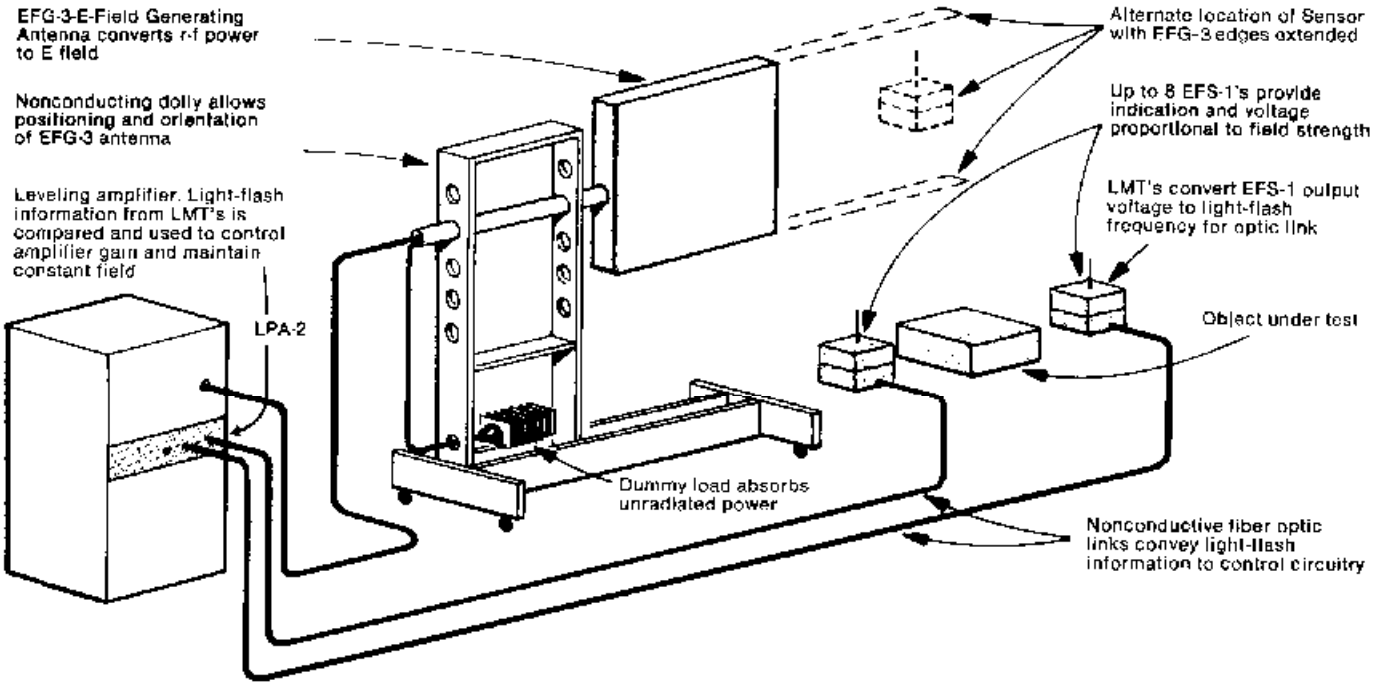
CRAWFORD CELL

- **For measurement of susceptibility and radiated emissions.**
- **Eliminates the uncertainty of shielded room testing.**
- **Protection from hazardous radiation during test.**



MODEL CC108

The high powered leader in broadband amplifiers



THE SYSTEMS APPROACH . . .
. . . FOR EMC/SUSCEPTIBILITY TESTING

A full line of standard products, designed with modularity and compatibility in mind, enable the user to construct a susceptibility test system that can be expanded to suit his needs. Combine any of these quality components for a custom test and measurement system . . .

- **M400 and M5300 Series Broadband Power Amplifiers**
- **EFG-3 E-Field Generator**
- **EFS-1/LMT E-Field Sensor with Fiberoptic Interface**
- **LPA-2 Leveling Preamplifier and System Controller**

This catalog provides a summary of the product lines manufactured by IFI. Consult the factory for these and other fine test and measurement equipment from Instruments for Industry.

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Printed In U.S.A.
0581-3M