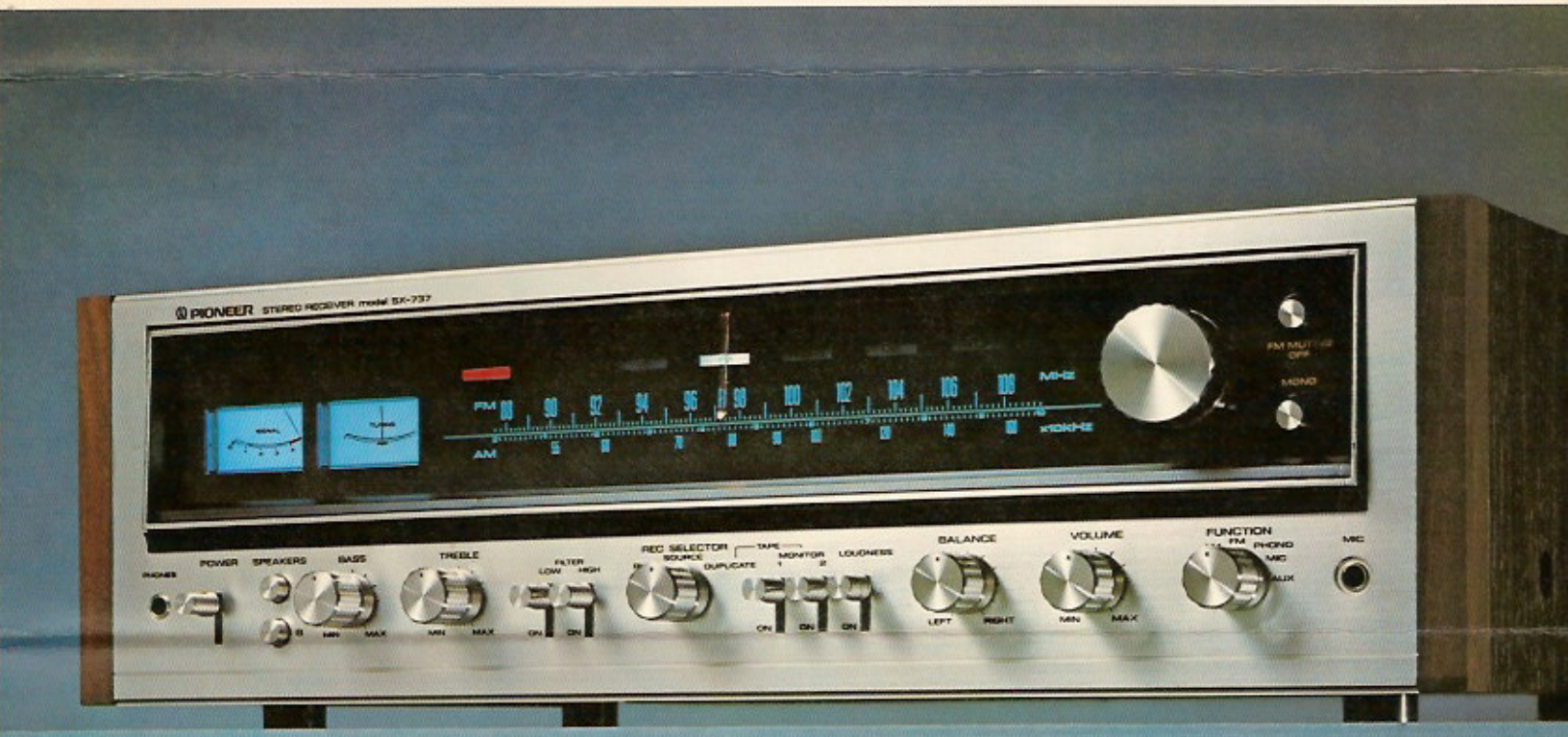
PIONEER

# SX-737

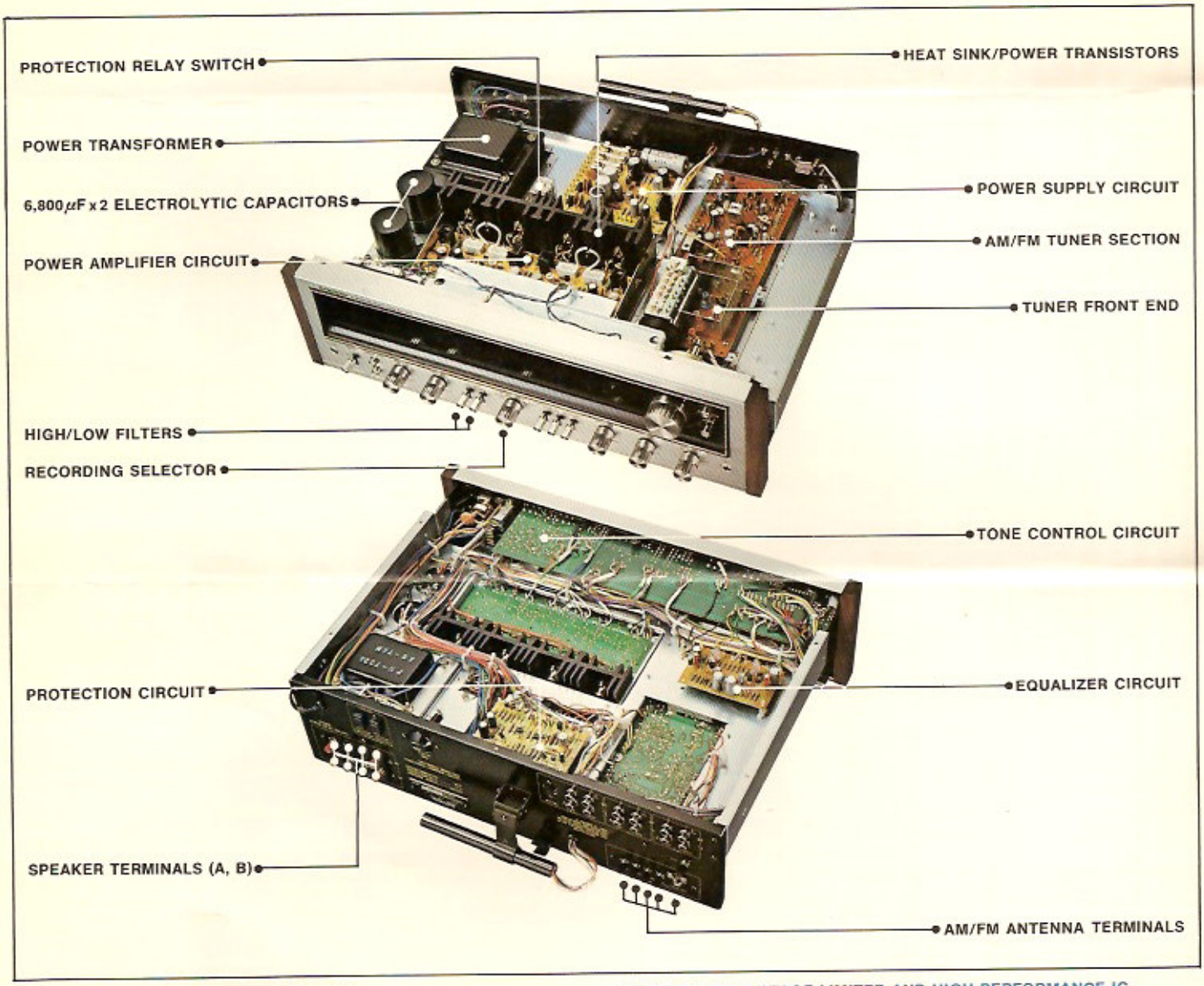
## High-quality stereo receiver featuring 35 watts per channel, min. RMS at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.5% total harmonic distortion.




It has the power to do the job—not too much and not too little. Pioneer's medium-powered SX-737 stereo receiver doesn't waste watts, yet it gives you the latest state-of-the-art advantages for versatility and true high fidelity performance. The FM front end is equipped with a frequency-linear 4-gang variable capacitor and dual-gate MOS FET. New dimension in FM reception stability is assured by its multiplex demodulator with the revolutionary PLL (Phase Lock Loop) circuit, while the FM IF section is equally advanced with its 5-stage limiter and phase-linear ceramic filters. The results in FM performance are impressive: 1.9μV (IHF) sensitivity; better than 60dB selectivity; capture ratio of 1.0dB (IHF); and stereo separation of more than 30dB over the 50 to 10,000Hz range. Accurate high fidelity reproduction of all sounds is achieved by using a particularly precise phono equalizer in the Pioneer SX-737. It keeps RIAA deviation within ±0.3dB. And as for that just-right amount of power for up to two pairs of stereo speaker systems, direct-coupled OCL power amplifier in the Pioneer SX-737 produces **Continuous power output of 35 watts* per channel, min. RMS at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.5% total harmonic distortion.** As a stereo control center the SX-737 is hard to beat. There are two stereo pairs of tape deck connections with monitoring and tape-to-tape duplication facilities (deck 1 ⇄ deck 2), a function switch to allow control of the FM and AM tuner sections, a stereo PHONO, a microphone, and a stereo AUX. As a bonus—and a feature you'll appreciate all the more with use—there is unique RECORDING SELECTOR to permit you to record FM broadcasts while listening to disc reproduction and vice versa. This receiver does the job.

*Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers. (Applicable to the U.S.A. only)
*Walnut grained vinyl top and side panels are used in the construction of this cabinet.

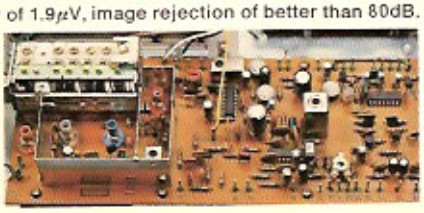
# SX-737




## AM/FM STEREO TUNER SECTION

### (1) FM FRONT END WITH DUAL-GATE MOS FET AND FREQUENCY-LINEAR 4-GANG VARIABLE CAPACITOR

Pioneer has selected an advanced, dual-gate MOS FET and a frequency-linear 4-gang variable capacitor for the vital FM front end in the SX-737. These contribute to the high IHF sensitivity of 1.9μV, image rejection of better than 80dB, and the suppression of cross-modulation to assure clear FM reception. Thanks to the frequency-linear design of tuning capacitor, the FM dial scale is linear (divided into equal sections) for easy and accurate tuning convenience.



### (2) FM IF WITH 5-STAGE LIMITER AND HIGH-PERFORMANCE IC

Pioneer's exclusively-developed FM IF IC is used in this important FM section. It is an LSI (Large Scale Integrated-circuit) — combining the functions of no less than 203 conventional solid-state devices (88 transistors, 18 diodes, 83 resistors and 14 capacitors). This IC forms the 5-stage limiter for stable limiter characteristics. This results in a capture ratio of 1.0dB (IHF), high signal-to-noise ratio of 70dB and AM suppression of 55dB. Further, a "quadrature detector" is employed in the detector circuit to reduce distortion, extend linearity and improve vital tonal quality.

### (3) PHASE-LINEAR CERAMIC FILTERS

The FM IF section also uses 4-element phase-linear ceramic filters to obtain very high station selectivity. The low phase-distortion attributes of the filters further improve sound quality, enable the MPX demodulator to provide best stereo separation even in the high-frequency range. IHF selectivity is rated at 60dB, thus the adjacent stations are sharply separated even in areas of multiple station signals.

### (4) STABLE PLL MPX SECTION

For stereo stability, the MPX section uses the new, state-of-the-art PLL (Phase-Lock-Loop) circuit. This locks the phase of the 19KHz FM pilot signal to that of the 38KHz switching signal to ensure extraordinary stability under all conditions. The circuit achieves very wide separation with low distortion (separation is more than 30dB over the 50 to 10,000Hz range; harmonic distortion is 0.4% in stereo mode).

### (5) DUAL METER TUNING SYSTEM AND FM-LINEAR SCALE

The SX-737 is extremely easy to tune with accuracy. In the FM mode, the dial scale is FM-linear (evenly divided), you first observe the signal-strength meter to obtain rough tuning, then fine tune with the center-tune meter. For AM tuning, the signal-strength meter will help you locate the strongest signal.

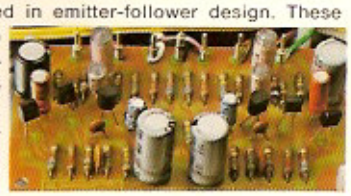
### (6) EXCLUSIVE IC-EQUIPPED AM SECTION

Pioneer employs a special IC (LSI) in the one-stage RF amplifier in the AM section. This provides excellent AGC (Automatic Gain Control) characteristics for low distortion. A balanced mixer design, and ceramic filters, further improve AM reception by providing lower distortion, high selectivity and a clean tonal quality.

## EQUALIZER AMPLIFIER SECTION

### (1) WIDE DYNAMIC RANGE

A 3-stage direct-coupled NF (Negative Feedback) amplifier is employed as the phono equalizer of the SX-737 with a low-noise transistor in the first-stage. The second stage is connected in emitter-follower design. These design improve maximum allowable phono input signal level (phono overload level) to 170mV (rms, 1KHz) while rated input is 2.5mV, meaning that a wide dynamic range is assured. In other words, it means that all sounds are reproduced without "clipping".



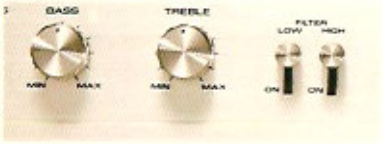
### (2) PRECISE RIAA EQUALIZATION

Sound information cut into the grooves of the record you play must be picked up and reproduced with a minimum of error. The RIAA curve, a standard of "perfect reproduction" is adhered to with hardly any deviation (±0.3dB only) at all times, thanks to the precision of the phono equalizer in the SX-737. You hear only what's on the record with no coloration.

## TONE CONTROL AMPLIFIER SECTION

### (1) "FLAT" TONE CONTROLS FOR ACCURACY

The tone control amplifier in the SX-737 employs three transistors in all, two of them in a 2-stage direct-coupled NF circuit. These and other elements in the tone control section are chosen for their precision so that when the tone controls are in their "flat" positions you hear no deviation or undulations in the response curve.




### (2) CLICK-STOP CONTROLS

Tuning your listening room to suit its acoustics, the particular music you are playing or to tailor the mood you wish to create is easy with the SX-737. The tone controls are equipped with click-stop positions for precise and versatile use.

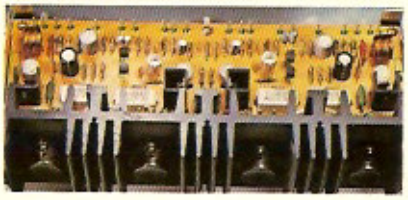
## POWER AMPLIFIER SECTION

### (1) AMPLE POWER OUTPUT

There are no wasted watts in the Pioneer SX-737 . To drive one or two pairs of stereo speaker systems with efficiency and brilliant sound, It produces **continuous power output of 35 watts* per channel, min. RMS at 8 ohms from 20 Hertz to 20,000 Hertz with no more than 0.5% total harmonic distortion.**

### (2) DIRECT-COUPLED OCL CIRCUIT

A wide frequency response is the results of using an all-stage direct-coupled OCL circuit in the power section. The first-stage differential amplifier and bias-compensation circuit allow the precise maintenance of a "zero potential" at the input and output points of the section to reduce error. Large paired PNP and NPN driver and power transistors are used in the pure-complementary design to minimize distortion, and since they are coupled with large heat sink and an advanced protection circuit, the SX-737 delivers stable drive force from the extremely small to extra large ends of its power capability.



### (3) AUTOMATIC PROTECTION CIRCUIT

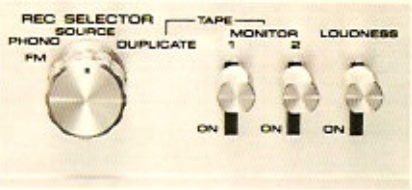
To safeguard your sensitive speakers and the vital power transistors in the amplifier itself, Pioneer employs an automatic protection circuit with an electronic circuit and a relay. The circuit also acts instantly to cancel the irritating speaker shock when the power switch is turned on or off.

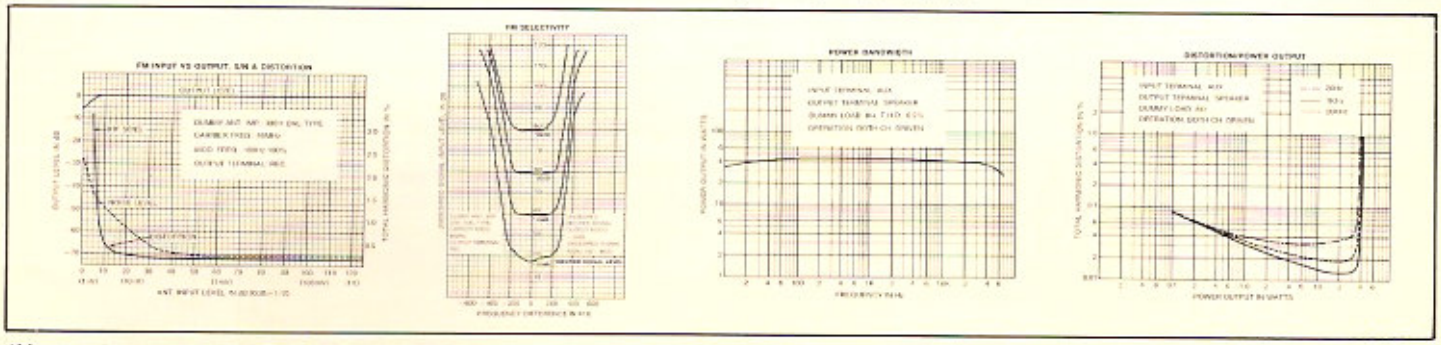
### (4) DUAL, 6,800μF ELECTROLYTIC CAPACITORS

Pioneer rounds out the perfect performance of the power amplifier section by using two large (6,800μF) capacitors in the power supply. The results include excellent regulation contributing to very low distortion in the extremely low frequency ranges at any power output level.

## OTHER FEATURES

The Pioneer SX-737 is a complete stereo control center. On the front panel, there is a unique RECORDING SELECTOR which permits you to record one source (FM, PHONO) while channeling another (PHONO, FM) through your speakers. The two stereo tape circuits are interconnected to allow tape-to-tape duplication from either deck to the other. Program input is indicated by attractive illuminators in the dial panel, corresponding to the position of the function switch which lets you control the FM or AM tuner section, a stereo turntable, a microphone and a stereo AUX unit. There are taps and a control for using up to two pairs of stereo speaker systems individually or simultaneously, and of course a stereo headphone jack for private listening.



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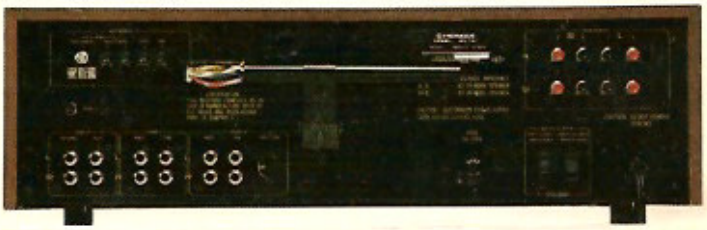

## SX-737 SPECIFICATIONS

### AMPLIFIER SECTION

**Continuous power output is 35 watts* per channel, min. RMS at 8 ohms or 40 watts* per channel at 4 ohms from 20 Hertz to 20,000 Hertz with no more than 0.5% total harmonic distortion.**

| | |
|---|---|
| Continuous Power Output | |
| 1,000 Hertz: | 40 watts per channel (8 ohms) |
| (both channels driven): | 50 watts per channel (4 ohms) |
| Total Harmonic Distortion: | No more than 0.5% |
| (20 Hertz to 20,000 Hertz) | (continuous rated power output) |
| | No more than 0.05% |
| | (1 watt per channel power output, 8 ohms) |
| Intermodulation Distortion: | No more than 0.5% |
| | (continuous rated power output) |
| | No more than 0.05% |
| | (1 watt per channel power output, 8 ohms) |
| Output Speaker: | A, B, A+B |
| Headphone: | Low impedance |
| Damping Factor: | 40 (1,000 Hertz, 8 ohms) |
| Input Sensitivity/Impedance | |
| PHONO: | 2.5mV/50 Kohms |
| PHONO Overload Level (rms): | 170mV |
| MIC: | 2.5mV/50 Kohms |
| AUX: | 150mV/50 Kohms |
| TAPE PLAY 1, 2: | 150mV/50 Kohms |
| TAPE PLAY 2 (DIN connector): | 150mV/50 Kohms |
| Output Level/Impedance | |
| TAPE REC 1, 2: | 150mV |
| TAPE REC 2 (DIN connector): | 30mV/80 Kohms |
| Frequency Response | |
| PHONO (RIAA equalization): | 30Hz to 15KHz ±0.3dB |
| AUX, TAPE PLAY: | 15Hz to 40KHz ±0.5dB, −1dB |
| Tone Control | |
| BASS: | ±10dB (100Hz) |
| TREBLE: | ±10dB (10KHz) |
| Filter | |
| LOW: | −9dB (50Hz) 6dB/oct. |
| HIGH: | −9dB (10KHz) 6dB/oct. |
| Loudness Contour: | +8dB (100Hz), +3dB (10KHz) |
| (volume control set at −40dB position) | |
| Hum & Noise (IHF, short-circuited A network) | |
| PHONO: | 70dB |
| MIC: | 65dB |
| TUNER, AUX, TAPE PLAY: | 95dB |

### FM TUNER SECTION

| | |
|---|---|
| Usable Sensitivity (IHF): | 1.9μV |
| Capture Ratio (IHF): | 1.0dB |
| Selectivity (IHF): | 60dB |
| Signal-to-Noise Ratio: | 70dB |
| Image Rejection: | 80dB |
| IF Rejection: | 100dB |
| Spurious Rejection: | 100dB |
| AM Suppression: | 55dB |
| Total Harmonic Distortion: | Mono; 0.2% |
| | Stereo; 0.4% |
| Frequency Response: | 20Hz to 15KHz +0.2dB, −2.0dB |
| | 50Hz to 10KHz +0.2dB, −0.5dB |
| Stereo Separation: | 40dB (1KHz), |
| | 30dB (50Hz to 10KHz) |
| Sub Carrier Suppression: | 40dB |
| Antenna Input: | 300 ohms balanced and 75 ohms unbalanced |
| Muting: | ON-OFF |

### AM TUNER SECTION

| | |
|---|---|
| Sensitivity: | 300μV/m (IHF, ferrite antenna), |
| | 15μV (IHF, ext. antenna) |
| Selectivity: | 35dB |
| Signal-to-Noise Ratio: | 50dB |
| Image Rejection: | 40dB |
| IF Rejection: | 70dB |

### SEMICONDUCTORS

| | |
|---|---|
| FET: | 1 |
| ICs: | 3 |
| Transistors: | 46 |
| Diodes: | 22 |

### MISCELLANEOUS

| | |
|---|---|
| Power Requirements: | For U.S.A. and Canada: 120V 60Hz only, |
| | For other countries: 220V 50 – 60Hz only |
| | or 110/120/130/220/240V (switchable) |
| | 50 – 60Hz |
| Power Consumption: | 190 watts (KCU), 280 watts (FGN) |
| Dimensions: | Without package: |
| | 19-11/16(W) x 6-7/32(H) x 17-5/32(D) inches |
| | 500(W) x 158(H) x 410(D) mm |
| Weight: | Without package: 29 lb. 2 oz./13.2 kg |

NOTE: Specifications and design subject to possible modification without notice.

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PIONEER®

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