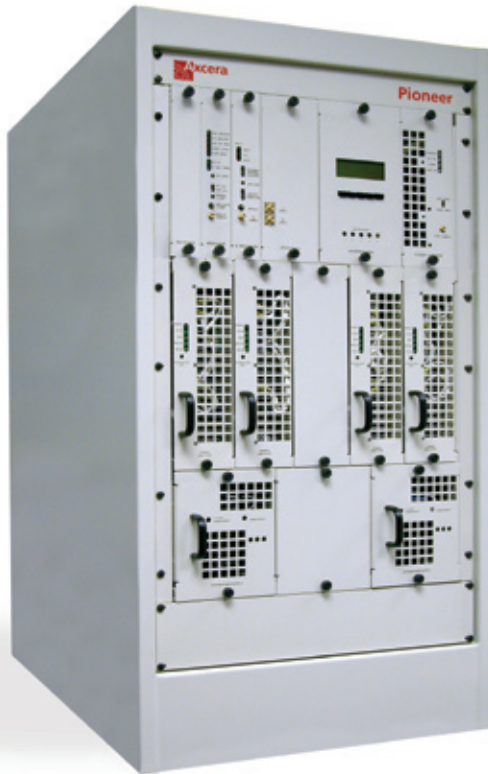


Low Power Transmitter 10W-2kW



Designed to provide broadcasters with a product that will meet their needs like no other solution on the market, this new low to medium power transmitter line uses the latest devices for broadband operation across each band. This allows users to minimize spare parts stock, which is especially important to group owners and networks, and also enables simple and inexpensive channel changes.

The very compact and completely modular design uses a chassis/backplane configuration with parallel amplifier and power supply modules which can be removed and replaced while the transmitter is on the air. Additionally, the Pioneer series was designed to be field upgradable to digital operation.

Configurations are available in power levels from 10 watts to 2 kilowatts analog and up to 1 kilowatt DTV, and all are manufactured in the USA by Axcera - *The RF Experts*.

Low Power Transmitter 10W - 2kW

Visual Performance

Frequency Range	470 to 806 MHz
Carrier Stability (<i>Transmitters</i>)	
Standard	±1 kHz
Optional w/PFC	±350 Hz
Frequency Translation Stability (<i>Translators</i>)	
Standard	±1 kHz
Optional w/PFC	±350 Hz
Regulation of RF Output Power	3%
Output Variation (<i>Over 1 Frame</i>)	2%
Sideband Response	
-1.25 MHz and below	-20 dB
-0.75 to -0.5 MHz	+0.5 dB, -2 dB
-0.5 to +3.58 MHz	±0.5 dB
+3.58 MHz to +4.18 MHz	+0.5, -1.0 dB
Freq Response vs. Brightness	±0.5 dB
Visual Modulation Capability	1%
Differential Gain	5%
Incidental Phase Modulation	±3°
Linearity (<i>Low Frequency</i>)	5%

Visual Performance (*continued*)

Differential Phase	±3°
Signal-to-Noise Ratio	55 dB
2t K-Factor	2%
Noise Factor (<i>Translators</i>)	5 dB (<i>Max</i>)
w/Input Preamp	3 dB (<i>Max</i>)
Input Dynamic Range (<i>Translators</i>)	-60 dB to -15 dBm
w/Input Preamp	-75 dBm to -30 dBm
Env. Delay (<i>Transmitters</i>)	Per FCC Standard
Video Input (<i>Transmitters</i>)	75 ohms (Loop through)
Harmonics	-60 dB or better
Intermodulation Products	-52 dB or better
Spurious (<i>≥3 MHz from channel edge</i>)	-50dB or better
100W and lower	-60dB or better
Greater than 100W	-60dB or better

Aural Performance

Frequency Deviation Capability (<i>Transmitters</i>)	±75 kHz
Distortion	0.5%
FM Noise	-60 dB
AM Noise	-55 dB
Aural to Visual Separation	4.5 MHz ± 100Hz
Composite Audio Input (<i>Multi-channel sound</i>) (<i>Transmitters</i>)	
Input Level	1V peak, nominal
Input Impedance	75 ohms, unbalanced
Frequency Range	
±0.1 dB response	50 Hz to 50 kHz
±0.5 dB response	30 Hz to 120 kHz
Monaural Audio Input (<i>Transmitters</i>)	
Input Level	0 to +10 dBm
Input	600 ohms, balanced
Freq Range (<i>±0.5 dB resp.</i>)	30 Hz to 15 kHz
Pre-emphasis	75µs
Subcarrier Input (<i>Transmitters</i>)	
Input Level	1V peak, nominal
Input Impedance	75 ohms, unbalanced
Freq Range (<i>±0.5 dB resp.</i>)	20 kHz to 120 kHz

General

Model Number*	LU10Ax	LU100Ax	LU250Ax	LU500Ax	LU1000Ax	LU2000Ax
Power Output (<i>Watts</i>)						
Visual (<i>Peak</i>)	10	100	250	500	1000	2000
Aural (<i>Avg.</i>)	1	10	15	50	100	200
Output Connector	N	N	7/8" EIA	7/8" EIA	7/8" EIA	7/8" EIA
Power Consumption (<i>Watts</i>)	250	675	1100	1900	3500	6700
Input Power						
Line Voltage (<i>Volts</i>)	117/230 ±10%		230 ± 10%			
Power Requirements	Single Phase, 50 or 60 Hz					
Size (<i>H x W x D</i>)	8.75"x19"x23" <i>(Chassis Only)</i>		55"x22"x34"			
Weight (<i>lbs.</i>)	45	45	340	360	400	550
Operational Temperature Range	0 to +50°, derate 2°C/1000 ft.					
Maximum Altitude ³	8500 feet (2600m) AMSL					
Operational Humidity Range	0% to 95% non-condensing					
RF Load Impedance	50 Ω					

* For transmitters use "T" suffix, translators use "L" suffix (ex. LU100AT - 100W Transmitter)

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