

TUNABLE ANTENNAFIER™ 915LTX



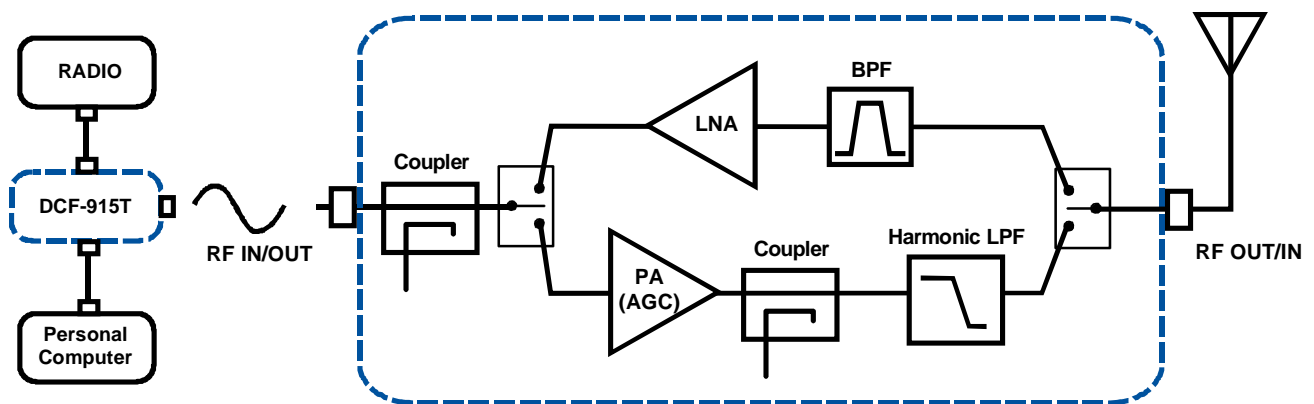
This 915 LTX is a Outdoor High Power Digitally Tunable Bi-Directional Amplifier for 802.11b/g/n WLAN. It's tuned and powered over a 50 Ohm coax. Now you can fine tune your system's RF Gain and TX Output Power remotely via a USB link & our free software. These amplifiers have a non-volatile memory and will recall their previous settings. Reprogramming is simple and can be easily accomplished in the field during a live-link.

Improve link margin digitally with a spectrally clean TX Boost from 0.5 W to 10 W and highly selective RX gain from 0 to +10 dB.

Featured Highlights:

- Fully Tunable AGC TX Power: 0.5W to 10W
- Fully Tunable RX Gain: 0 to 10dB
- USB controlled
- Outdoor Rated
- Non-Volatile Memory (tune and remember)
- DC-Injector & Power Supply Included
- Built-in Radio Power Meter
- High Q filtering in both RX & TX paths
- Low Receive Noise Figure
- Internal Lightning Protection
- RX/TX LED Indicator
- Automatically switches between RX/TX

ANTENNAFIER™ 915LTX BLOCK DIAGRAM



The marketing, sale, and use of power amplification devices are governed by and subject to Part 15 of the Rules and Regulations of the Federal Communications Commission. Such devices may only be sold to parties assembling certified RF transmission systems consisting of an intentional radiator, an external radio frequency power amplifier, and an antenna.

Typical Performance Parameters

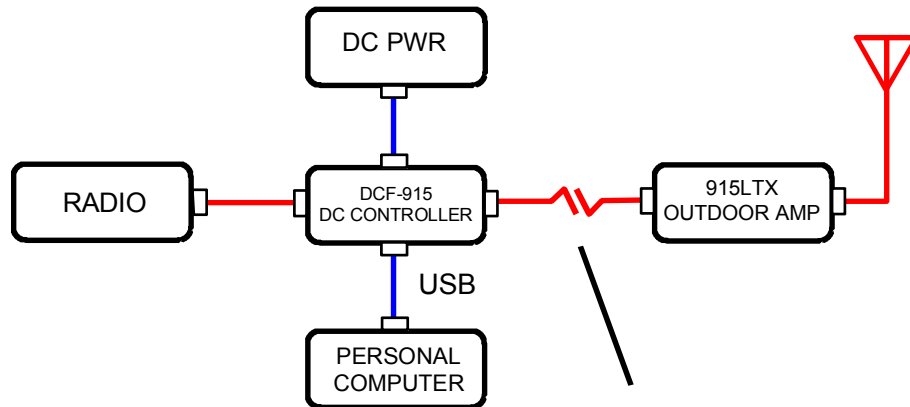
Frequency Coverage:	902-928 MHz	
Supply Voltage:	+12 VDC	2.1mm I.D. (+), 5.5mm O.D. (-)
Receive:	Adjustable Gain:	0 to 10 dB (0.1 dB increments)
	Noise Figure:	4.0 dB Typ.
	Supply DC Power:	< 290 mA
	TX to RX Switching:	< 500 nSec
	IP ₃ (Input):	+20 dBm
Transmit :	Adjustable AGC Power :	0.5 W to 10 W (27 dBm to 40 dBm, 0.1 dB inc)
	AGC range:	Min Gain : 0 dB Max Gain: 33 dB
		(For Pout = 27dBm ; Set Pin from +2 to +23dBm)
		(For Pout = 40dBm ; Set Pin from +7 to +23dBm)
	RF input Power for Turn-On:	+2 dBm

	Average RF Output Power	Typical Data Rate
802.11b	44.8 dBm (10 W)	11 –24 Mbps
802.11g	38.5 dBm (7W)	24-36 Mbps
	37 dBm (5W)	36-48 Mbps
	≤36 dBm (4 W)	54 Mbps

	Harmonic Rejection:	> 79 dBc @ Poutput = +33 dBm
	Supply Current:	< 5 A Peak, 2.5A nominal
	RX to TX Switching:	< 500nSec
Maximum Ratings:	Pin (Radio Port):	+27 dBm, +23dBm nominal
	Pin (Antenna Port):	+36 dBm
System Filtering:	RX chain:	3 poles of high Q coaxial band pass filtering
	TX chain:	3 pole LPF to suppress harmonics
Chassis Size :	9.950" x 7.030" x 2.470"	
	Rugged aluminum die-cast chassis, with white powder coat finish	
Connectors:	RF Connectors	'N' Female
	USB	Mini-'B' Female 5 Pin
	DC Power	2.1mm
Weight:	< 4.5 Lbs	
Indicator LED:	Green LED -Receive Mode, Red LED-Transmit Mode	
Lightning Suppression:	Antenna N-Connector, DC short	
Temperature:	-40 to +70 Deg C	

Deployment Diagram:

Typical Outdoor Application



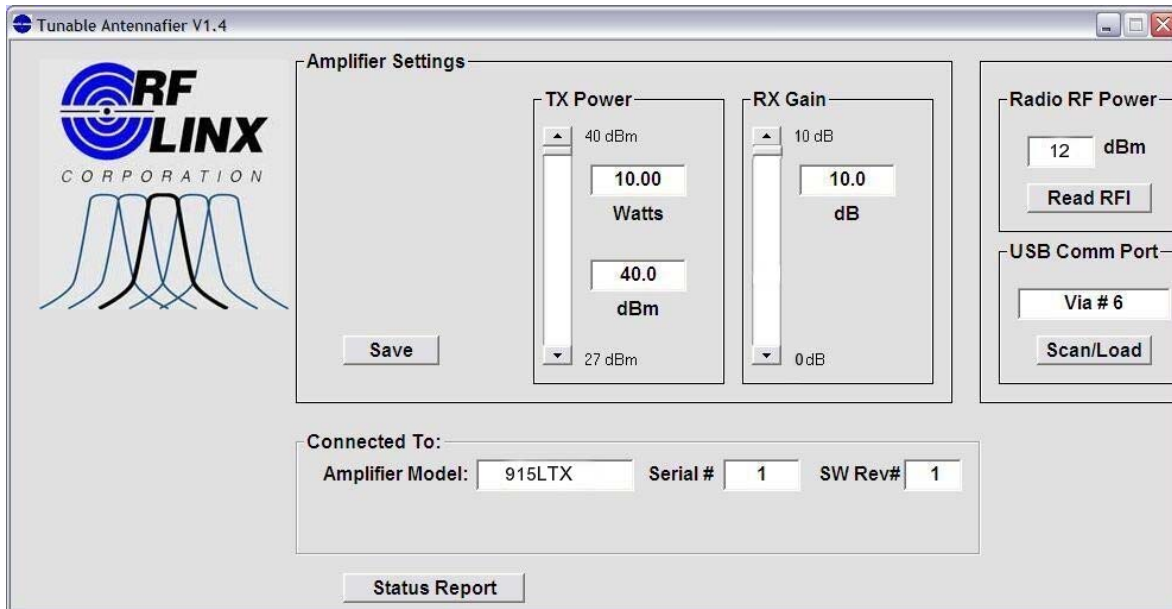
Caution Before Connecting DC Power:

- When operating this amplifier always connect a 50 Ohm Load to Antenna Port.
- High RF Output Levels (10W), severe RF burns can result
- High DC Supply Currents, 12VDC @ 5A

Times Cable	Maximum Length
LMR-400	75 ft
LMR-600	130 ft
LMR-900	200 ft
LMR-1200	330 ft

Programming Your Tunable Antennafier™ :

Programming is easily accomplished with a USB connection and our Tunable Software. The software operates on Windows platforms. Below is a screen-shot of our interface.



After applying power, the software reads the amplifiers settings via a USB connection. Each Antennafier™ leaves the factory set at TX Pwr=+30dBm and RX Gain =+10dBm, and has a unique serial number. To change the TX Pwr and RX Gain settings, simply adjust the slide bar to the desired levels, the changes are almost instant. To permanently store these settings simply press the “Save” button, then disconnect the USB connection. The Tunable Antennafier™ always remembers its stored information even when power is cycled.

The digital tune information is carried through the 50 Ohm Coax between the controller and amplifier and does not interfere with radio traffic.

Radio Output Power to the amplifier can also be measured. Selecting “Read RFI”, will yield average RF energy during a TX cycle. This RF power measurement is useful and will aid in system diagnostics.

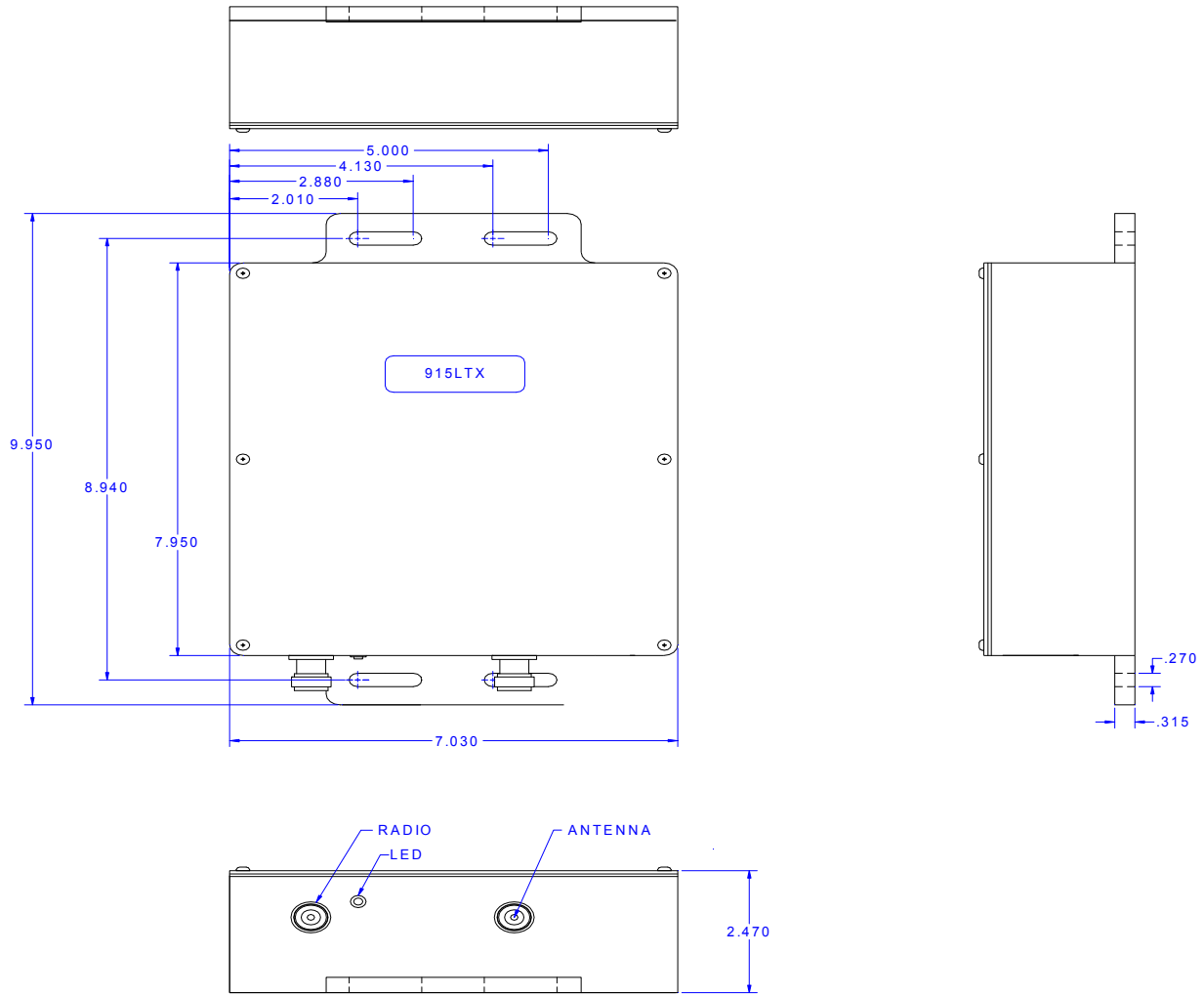
A “Status Report” button is used to provide detailed diagnostic information.

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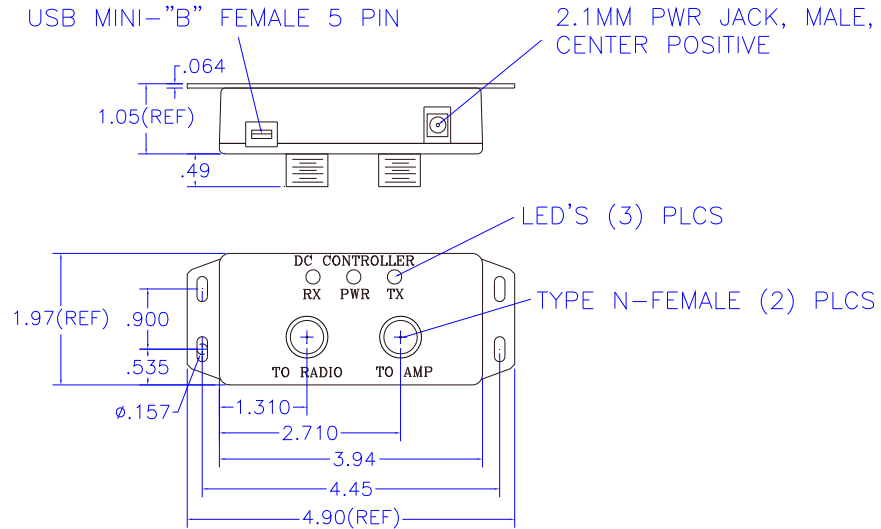
Mechanical Outline:

Amplifier:



Mechanical Outline:

DC Controller:



Each Amp Includes:

- 10 Watt Outdoor Amplifier
- Indoor DC Controller
- Two 2.5" U bolt mounting brackets
- Coax Seal
- Tunable CD Software
- USB Cable
- +12V 5A Power Supply