



**900MHz / 868MHz**  
**Outdoor Helium Amplifier**  
**Item # SHR90304**

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**Offered** in 902–928MHz and 863–870MHz bands (optional).

**Utilizes** ultra-low noise LNA on the receive side with 16dB of gain.

**Tx gain** set at 6dB for use with Helium and other mining devices. 0dB or bypass option available as well.



**Salient Features:**

1. **Transmit Gain:** 6dB Tx gain is sufficient to recover all cable/connector losses and give full 1watt power that's legally allowed in most areas.
2. **LNA:** The built-in Ultra Low Noise Amplifier with signal gain of 16 dB improves the receive sensitivity of remote equipment, while keeping noise level very low.
3. **Receive Filtering:** The band pass filter on this amplifier gives added protection against out of band noise.
4. **Enclosure:** The unit is housed in patented housing that does not require mounting hardware and seals to a completely watertight unit with a twist of hand. A state-of-the-art unit.
5. **Power consumption:** With only 5 watt of power consumption during max transmit and 0.25W during Rx, this product is the most efficient product available anywhere.
6. **DC Injector:** With only 0.8dB insertion loss, this DC injector is the lowest loss available anywhere. Enclosed in specially designed machined aluminum housing.
7. **Warranty:** All Shireen's amplifier products come with 2-year warranty and made in USA.

**The complete set includes:**

1. The Outdoor Amplifier,
2. DC injector, and
3. Universal power supply (110~240VAC to 6 V DC)
4. RPSMA to N male cable

**Specifications:**

**Electrical:**

Operating Range	902 - 928 MHz (863-870MHz optional)
Operating Mode	TDD, Time Division duplex,
Transmit Power	30 dBm, 1 Watt
Transmit Gain	6 dB (0dB or bypass option available)
Transmit input Power	0 dBm min 24 dBm max
Receive Gain	16 dB
Noise Figure	1.2 dB
LED indicators	Red for Receive, Green for Transmit (visible only when cover removed)
Power Consumption	40mA Rx, 0.9A Tx @ 6 VDC
Operating Temp	-40 °C to + 70 °C

**Mechanical:**

**Amplifier**

Dimension:	1.1" (28mm) diameter 4.1" (104mm) long
Enclosure:	Weatherproof, machined
Connectors:	Type N male for antenna port and female for radio port
Weight:	10 Oz. (283 g)

**DC Injector**

Dimension:	1.4" x 3.5" x 1.0" (with Type N female connectors)
Enclosure:	Machined aluminum housing with Anodized finish
Connectors:	Type N female
Weight:	4.7 Oz. (134 g)