# fransAir™ 220 MHz 3 dBi Pifa Antenna

Lilee Systems™ Locomotive Antenna for Positive Train Control (PTC) Applications



#### **Features**

- Rugged, nearly indestructible aluminum design with a
- Wide bandwidth to reduce detuning from harsh weather such as ice and snow
- Reduces EMF noise introduced into the communications system



Snecifications





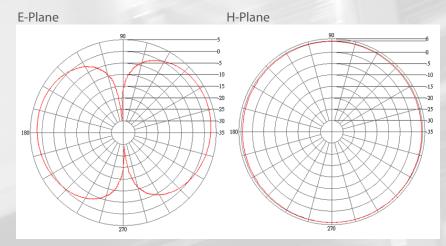


#### Introduction

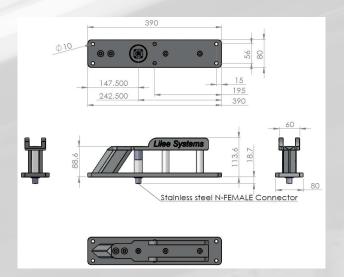
The TransAir 220 MHz 3 dBi Pifa antenna is specifically designed for use with the Lilee Systems TransAir PTC Locomotive Radio in Positive Train Control (PTC) deployments for freight and commuter rail.

The TransAir 220 MHz antenna's rugged construction provides increased reliability and ensures long life in extreme environmental conditions encountered in railroad applications. In addition, the TransAir 220 MHz antenna's aluminum construction protects against corrosion to withstand the harsh chemicals used on the exterior of the locomotive.

### Radiation Pattern (220 MHz)



## **Mechanical Drawing**



<b>Specifications</b>	210 MHz		220 MHz		230 MHz	
	E-plane	H-plane	E-plane	H-plane	E-plane	H-pla
Max Gain (dBi)	0.83	2.79	3.2	5.02	2.73	3.
Max Gain@Angle (degree)	159	225	21	286	0	3
Min Gain (dBi)	-29.95	1.43	-29.72	4.27	-31.06	2.
Min Gain@Angle (degree)	88	13	95	173	92	1
Average Gain (dBi)	-2.02	2.33	-0.01	4.68	37	3
-3 dB Angle L (degree)	223.6	223.4	60.75	285.3	51.75	307
-3 dB Angle R (degree)	121.6	223.5	325.8	285.4	305.8	307
Half-Power Beam Width	102	.1	94.95	0.1	105.95	(
Front-to-back Ratio (dBi)	1.7	1.01	1.64	0.25	1.27	1.
Frequency Range	210 - 230 MHz					
Power Rating	300 W					
Pattern	Omni-directional					
Connector	N-Type Female Connector					
Material	Aluminum					
Dimensions (H x W x L)	113.6 cm x 80 cm x 390 cm ( 4.47 in x 3.15 in x 15.35 in)					



Lilee Systems, Inc. 2905 Stender Way, Suite 78 Santa Clara, CA 95054 Tel: 408.988.8672 www.lileesystems.com information@lileesystems.com

Six mounting holes

H-plane 3.78 308

> 2.05 179 3.1

307.3 307.4 0.1 1.08

Weight Mounting