

**800 / 1900 MHZ DUAL BAND LINEAR RF COMPENSATOR
MODEL # SYN8486A
USER MANUAL**

1. OVERVIEW

The 800 / 1900 MHz Dual Band Linear RF Compensator is a bi-directional, dual band RF amplifier used in conjunction with either a dual band or a standard single band mobile phone. It compensates for signal attenuation in both transmit and receive paths due to antenna and cable losses employed in automotive OEM installations. This will help to improve call quality in weak coverage areas and reduce dropped calls in between cell sites. The compensator operates in both analog and digital modes.

2. ANTENNA INSTALLATION

To meet the FCC's and IC's RF Exposure Guidelines, the antenna should be installed so there is at least 20 cm of separation between the body of the user or nearby persons and the antenna.

All installations are done at the factory. There is no end-user installation is involved. Any unauthorized changes or modifications not expressly approved by the party responsible for compliance could void user's authority to operate this equipment.

3. I/O CONNECTION

Portable and antenna port: mini UHF type connectors.
DC input and various control signals: 14-pin connector.

4. SPECIFICATIONS

FCC ID	IHDA56AJ1
FCC Rule Parts	22 & 24
IC Certification Number	10931128A
IC Radio Standards Specification	RSS-131
Model Number	SYN8486A
Operating Frequency	TX: 824-849 MHz 1850-1910 MHz RX: 869-894 MHz 1930-1990 MHz
Channeling	Single channel
Mode of Transmission	Analog & Digital
Data Source	External

Type of Modulation	AMPS (analog) CDMA (digital) GSM (digital) TDMA (digital)
Type of Information	Telephony & Data
Occupied Bandwidth Requirement	AMPS: 30 KHz CDMA: 1.23 MHz GSM: 300 KHz TDMA: 30 KHz
Input Power	TX: 25 dBm max
Output Power	TX: 27 dBm
Nominal Gain	Cellular: TX: 824-849 MHz: 9 dBm PCS: TX: 1850-1910 MHz: 15 dBm
Harmonics & Spurious	FCC, IC & TIA / EIA specifications
Stability	Any RF load condition
DC Supply Voltage	9 to 16.5 V
Current Draw	1.5A max
RF Load VSWR	Full power at better than 2:1 VSWR
Operating Temp:	-30 to 60°C
Storage Temp	-40 to 90°C