

SPECIFICATIONS FOR
TDMA BAND B
COMPACT Bi DIRECTIONAL AMPLIFIER
(CBDA)
WITH AGC& MGC
MODEL:MW-CBDA-TDMAB-1W60-A



BDA OVERVIEW:

The Compact Bi-Directional Amplifier (CBDA) assembly provides an exceptional repeater/booster performances to extend the coverage area of radio communications in buildings and RF shielded environments.

Features such as high linearity power amplifiers are contributing for the overall improved system linearity performances. The unit is based on a duplexed path configuration, having sharp out of band attenuation for improved isolation between the receiving and transmitting paths.

BLOCK DIAGRAM DESCRIPTION:

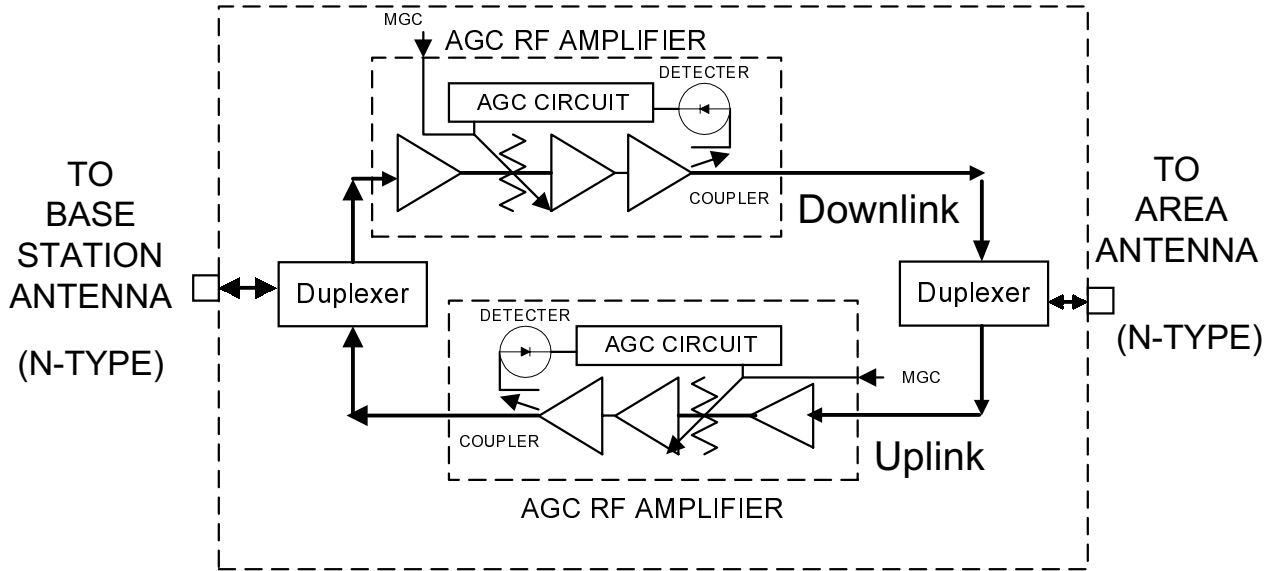
The CBDA Downlink amplifier receives the RF signals from base station amplifies them and transmits them to the subscriber. The BDA Uplink amplifier receives the RF signals from the subscriber amplifies them and transmits them to the base station. Two duplexers frequency separate the signals to the proper amplifying path and isolate the two signals.

The amplifiers in this BDA have an AGC option switch. When switched on, the AGC circuit limits the amplifier output power. The AGC circuit senses the output power and introduces more attenuation, when the output power exceeds the preset level of +24 dBm. This way the gain of the amplifier is reduced, its output power is limited and the intermodulations products are kept below the desired level.

In this manner the output power cannot exceed the +24 dBm preset power and the IMD levels are always kept below –13 dBm.

The AGC amplifier has a Power LED lamp that illuminates when the output power has reached the power limit of +24 dBm.

In addition the BDA has a trimmer that enables the reduction of the gain by 15 dB.



BDA with AGC & MGC

BLOCK DIAGRAM

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ELECTRICAL SPECIFICATIONS:

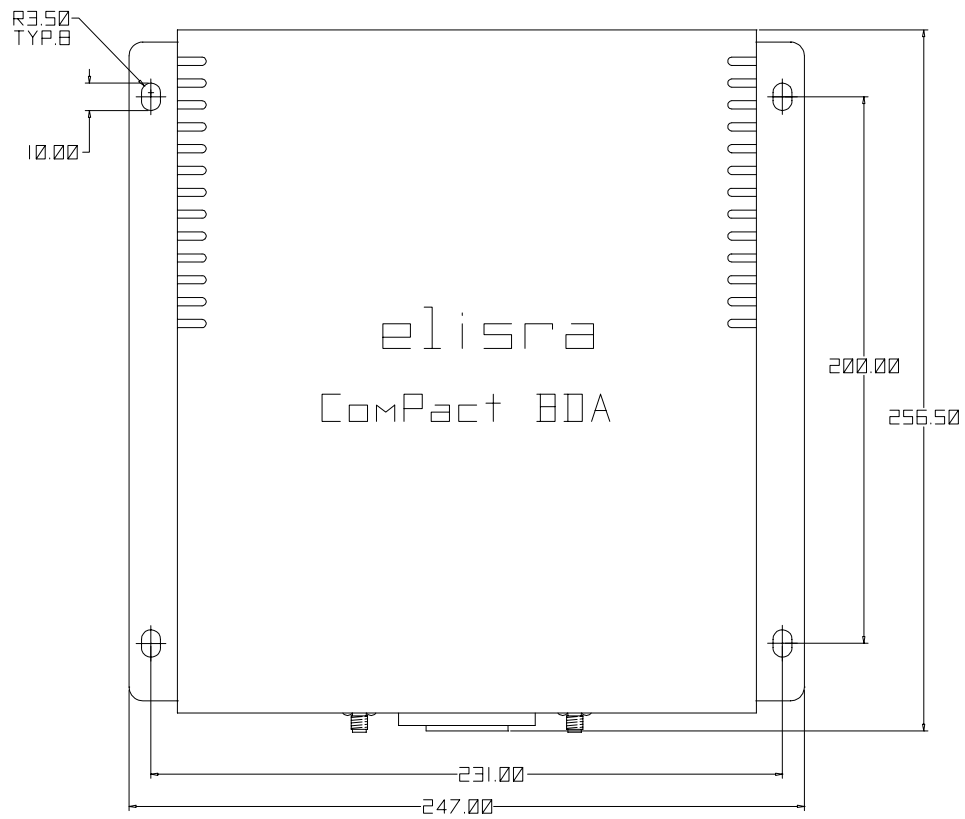
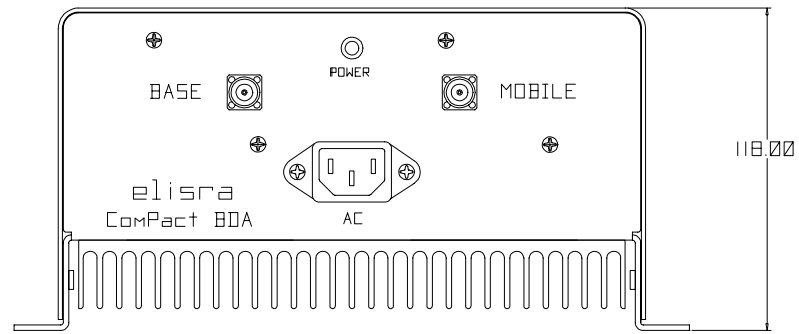
Frequency Range (MHz)	Down Link (Base to Mobile): 835-849 Up Link (Mobile to Base) : 880-894
Passband Gain @Min attenuation	60 dB nominal
Passband Ripple	+/- 1.5 dB max
Manual Attenuation Range	0 to 15 dB continuos
Isolation between up and down link	75 dB typical
Noise Figure	6.0 dB max
Amplifier Power Output @1 dB Compression	1 Watt minimum
3rd Order output Intercept point	+45 dBm typical
IMD @2 tone @+20 dBm/carrier	50 dBc typical
Impedance level	50 ohms
V.S.W.R In/Out	1.5 : 1 max
AGC Dynamic Range	30 dB typical
AGC Factory Power Preset	+24 dBm nom.
Power Supply	: 110/220V AC, 50-60 Hz

MECHANICAL SPECIFICATIONS:

Size mm(Inch)	: 250(10) x 250(10) x120(5)
RF Connectors	: N-type Female
Weight	: 7 kg. Approx.

ENVIROMENTAL CONDITIONS:

Operating temperature	: - 30°C to + 50°C
Storage temperature	: - 50°C to + 90°C



MECHANICAL OUTLINE