USED ON	NEXT ASSY	REVISIONS					
		REV	ECN NO.	ECN SH	DATE	NAME	SIGN
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SPECIFICATIONS FOR
COMPACT Bi DIRECTIONAL AMPLIFIER
(CBDA)
WITH AGC& MGC
MODEL:MW-CBDA-800AB-10W80

REV NO.																					
SH. NO.	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
REV. NO.																					
SH. NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

SHEET REVISION STATUS

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APPD QC			
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Ekolink WIRELESS LTD.

elisra electronic systems ltd.

TITLE

CLASS	SIZE	DWG NO
	A	
DIM	SCALE	PAGE 1 OF 5

Dekolink WIRELESS Ltd.
16 Bazel St. Qiryat-Arieh Petah-Tikva, Israel, 49510
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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 path receives the RF signals from base station amplifies them and transmits them to the subscriber. The BDA Uplink path 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.

For each path two amplifiers do the path signal amplification; a low noise amplifier (LNA) and a high power amplifier. The low noise amplifier has a 30 dB step attenuator at its output. The step attenuator is used to set the BDA repeater gain.

The power amplifiers in the 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. This way the gain of the amplifier is reduced, its output power is limited and the intermodulations products are kept below the desired level.

The AGC amplifier has a Power LED lamp that illuminates when the output power has reached the preset power limit.

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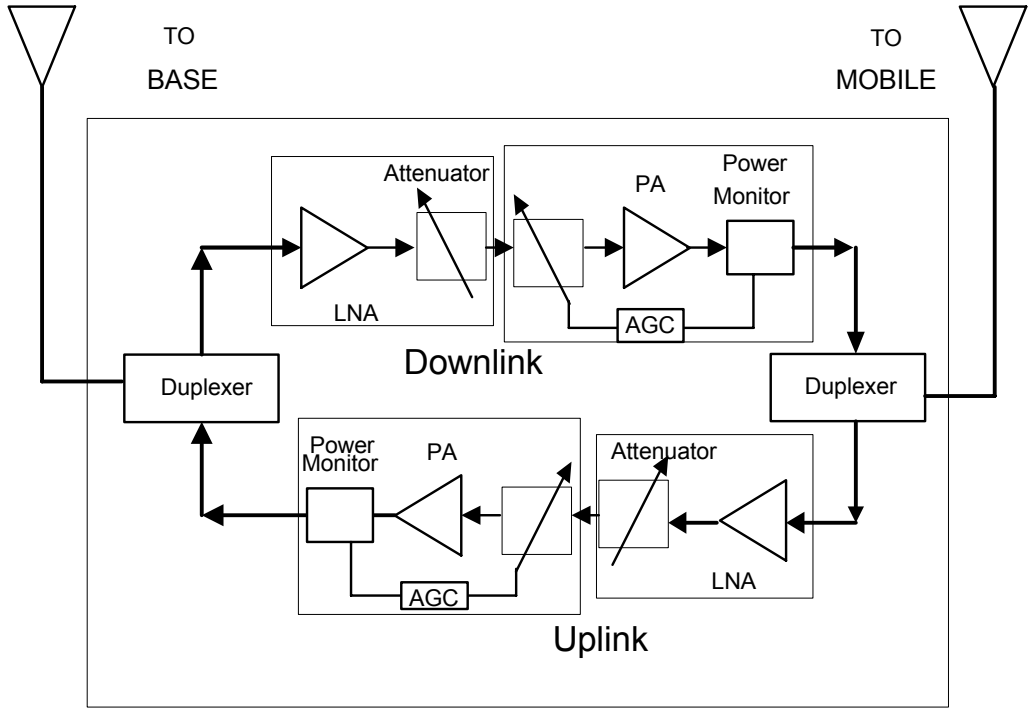

CBDA-10W80
RF BLOCK DIAGRAM

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ELECTRICAL SPECIFICATIONS:

Frequency Range (MHz)	Down Link (Base to Mobile)	Up Link (Mobile to Base)
	869-894	824-849
Passband Gain @Min attenuation	80 dB nominal	
Passband Ripple	+/- 1.5 dB typical	
Manual Attenuation Range	0 to 30 dB in 2 dB step	
Isolation between up and down link	90 dB typical	
Noise Figure	6.0 dB max	
Amplifier Power Output @1 dB Compression	: 10 Watts minimum	1 Watts minimum
3rd Order output Intercept point	+50 dBm typical	+45 dBm typical
AGC Factory Power Preset	+30 dBm nom.	+24dBm nom.
Impedance level	50 ohms	
V.S.W.R In/Out	1.5 : 1 max	
AGC Attenuation Range	25 dB typical	
AGC Selection	By ON/OFF Switch	
AGC LED Indication	LED turn ON when power reaches AGC Set Power Level. (both at On and Off Positions).	
Power Supply	: 110/220V AC, 50-60 Hz	

* *same specifications for both paths unless specified.*

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MECHANICAL SPECIFICATIONS:

Size mm(Inch)	: 265(10.4) x 250(9.8) x140(5.5)
RF Connectors	: N-type Female
Weight	: 9 kg. Approx.

ENVIROMENTAL CONDITIONS:

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

MECHANICAL OUTLINE