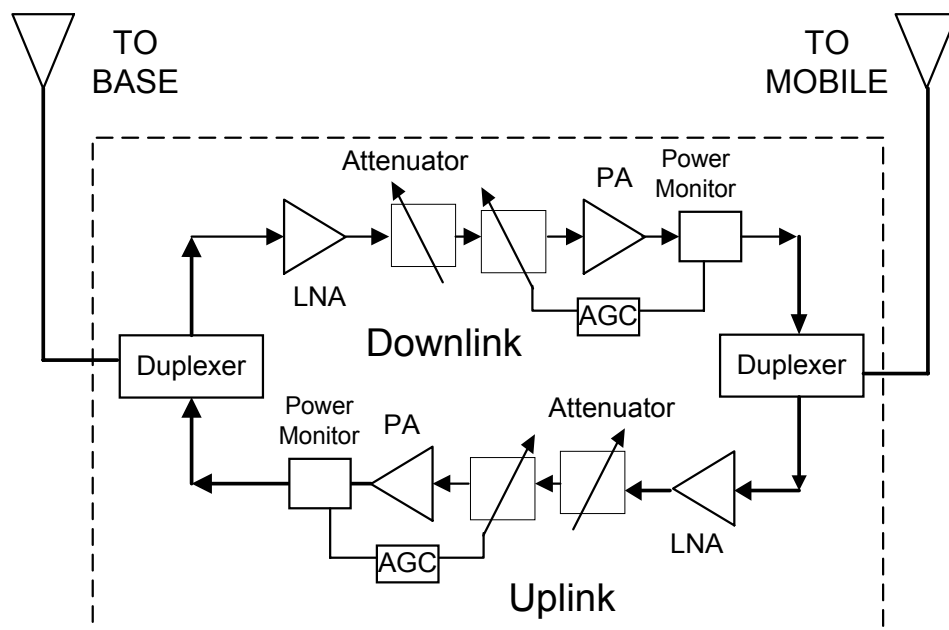




Dekolink WIRELESS Ltd.
16 Bazel St. Qiryat-Arieh Petah-Tikva, Israel, 49510
Tel- 972-3-9180-180 Fax-972-3-9180-190
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RF COMPONENTS DESCRIPTION AND SCHEMATICS FOR MW-BDA-PCS-F-50W90



BDA RF BLOCK DIAGRAM



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LNA +STEP ATTENUATOR

This is a 48dB GAIN unit with a 30 dB step attenuator. The step attenuator is used to reduce the Repeater gain when needed, usually to set proper output power. Both Uplink and downlink LNA's are the same except for a ceramic filter that is tuned to the proper band (uplink / downlink). In the downlink path the LNA consists off AGC circuitry. The TX detected video output is fed to this amplifier. This AGC limits the power transmitted by the TX amplifier even when AGC is turned off.

SPECIFICATIONS

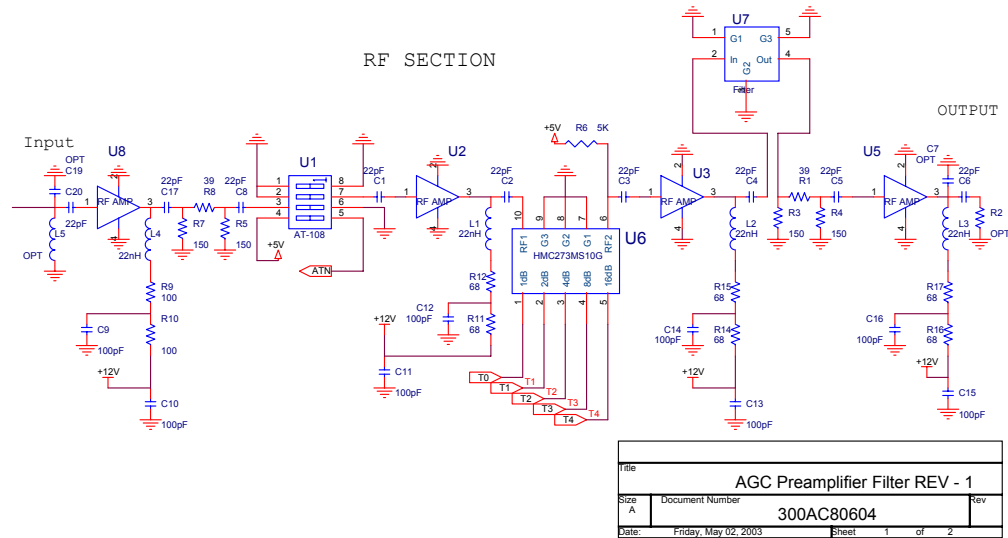
Parameter	Specifications
Input Frequency Range	Uplink 1890-1895 MHz Downlink 1970-1975 MHz
RF Gain	48±2 dB
Gain Ripple	<±0.7 dB
Attenuation Range	0 to 30 dB
Noise Figure at max gain	<4 dB
Output 3 rd order intercept point	>30 dBm
VSWR Input and Output	<1.5:1
RF Connectors	SMA female
Supply Voltage	12 to 30 Volt
Supply Current	220±50 mA



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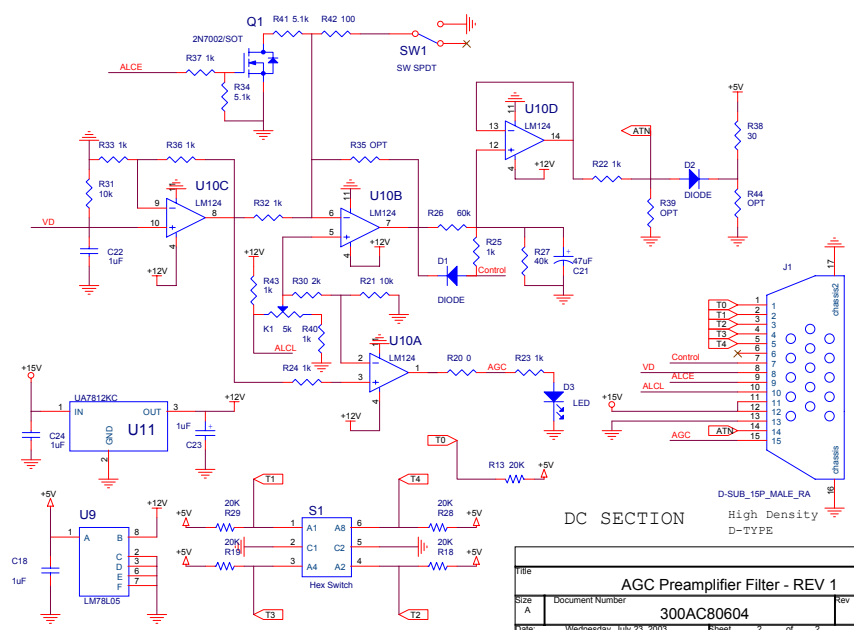
LNA CIRCUIT DIAGRAM

RF SECTION



LNA CIRCUIT DIAGRAM

CONTROL SECTION





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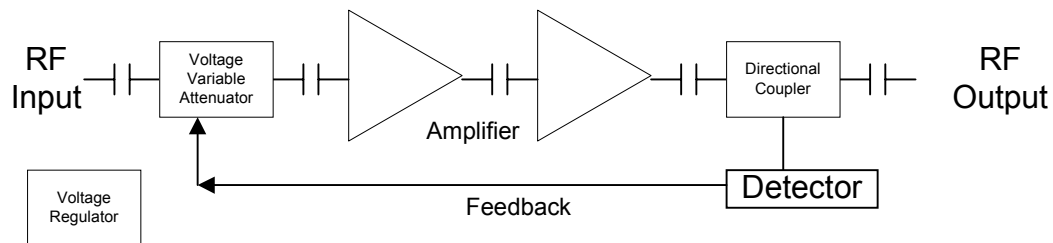
Downlink power amplifier:

This is a 50W 1dB compression amplifier operated at 10W composite output power. The power is limited by AGC mechanism to keep system performance.

This is a Buy product so we have only block diagram.

SPECIFICATION

Parameter	Specifications
Input Frequency Range	1950-2000 MHz
RF Gain	46±2 dB
Gain Ripple	<±0.7 dB
Output 3 rd order intercept point	+64 dBm typ; +62 dBm min
VSWR Input and Output	<1.5:1
AGC Set Point	+41±1 dBm
AGC Range	>10 dB
RF Connectors	SMA female
Supply Voltage	28 Volt
Supply Current	4 A at +40 dBm



DOWN LINK POWER AMPLIFIER BLOCK DAIGRAM



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Uplink power amplifier:

This is a 8W 1dB compression amplifier operated up to 1W composite output power. The power is limited by AGC mechanism to keep system performance. The amplifier uses 28VDC, 1.4 AMP. Typ.

Uplink Power Amplifier

SPECIFICATIONS

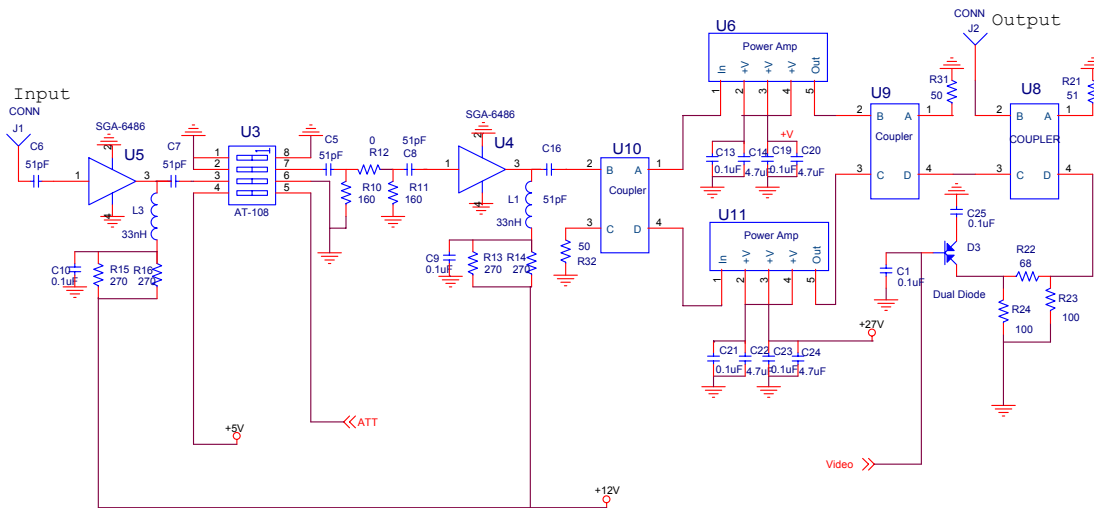
Parameter	Specifications
Frequency Range	1800-2000 MHz
RF Gain	46±2 dB
Gain Ripple	<±0.7 dB
Noise Figure	<10 dB
Output 3 rd order intercept point	+49 dBm typ; +47 dBm min
VSWR Input and Output	<1.5:1
AGC Set Point	+28±1 dBm
AGC Range	>20 dB
RF Connectors	SMA female
Supply Voltage	28 Volt
Supply Current	1.4 A



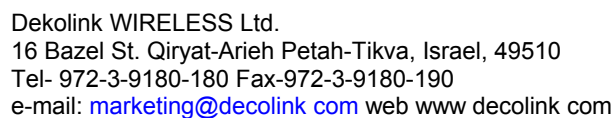
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UPLINK POWER AMPLIFIER CIRCUIT DIAGRAM

(Page 1 of 2)



Title			
Dual Power Amplifier			
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