

Mimix Broadband, Inc. 10795 Rockley Rd. Houston, Texas 77099 Tel: 281.988.4600 Fax: 281.988.4615 mimixbroadband.com

## Alcatel MDR-4X04 TWTA SSPA Replacement Kits

## Features:

- Units operate over the full 3.7-4.2 GHz frequency range
- 5, 10, and 15 Watt output power levels are available
- Simple and easy Installation Instructions are included
- All units accept -21 to -56 VDC input voltage range
- X Standard 5-Year Warranty



## Description:

Mimix Broadband's SMaRTPAK (Standard Microwave Radio TWT replacement Power Amplifier Kit) amplifiers are uniquely designed to combine the DC/DC Converter, microwave amplifier and cooling devices into one single integrated unit. Each unit has been designed using modern device technology and includes reverse polarity, overvoltage and excess thermal protection. Unlike TWT's and other TWT replacement options, SMaRTPAKs do not require a separate, bulky and often unreliable power supply.

All units are designed to directly drop-in place of existing TWT or SSPA units with no modifications saving significant time and effort. Using the proper equipment, unit installations and alignment can typically be done almost effortlessly in less than an hour. It is recommended that all first time users have a Mimix Broadband representative present during initial installation. Ask us about our onsite installation and alignment options.

Mimix is confident that you will be pleased with our product and each unit comes with a standard five-year warranty. If you do not see a part number that covers your desired frequency, power or radio type, feel free to contact us and we will gladly review your requirements.

Electrical Characteristics (T=25 °C)		1006338 - 5W			1006339 - 10W			1005409 - 15W		
Parameter	Units	Min	Тур	Max	Min	Тур	Max	Min	Тур	Max
Frequency Range	GHz	3.7	-	4.2	3.7	-	4.2	3.7	-	4.2
Input Return Loss	dB	-	-14.0	-9.5	-	-14.0	-9.5	-	-14.0	-9.5
Input/Output Impedance	ohms	-	50	-	-	50	-	-	50	-
Gain	dB	45.0	50.0	-	45.0	50.0	-	45.0	50.0	-
Gain Flatness	dB	-	+/-0.5	+/-1.0	-	+/-0.5	+/-1.0	-	+/-0.5	+/-1.0
Noise Figure	dB	-	8.0	10.0	-	8.0	10.0	-	8.0	10.0
Input Power	dBm	-	-12.0	+5.0	-	-12.0	+5.0	-	-12.0	+5.0
Output Power (P1dB)	dBm	+37.0	+38.0	-	+40.0	+41.0	-	+41.0	+42.0	-
Third Order Intermodulation (1)	dBc	-	52.0	48.0	-	52.0	48.0	-	52.0	48.0
Spurious	dBc	-	-	70.0	-	-	70.0	-	-	70.0
Harmonics	dBc	-	-	60.0	-	-	60.0	-	-	60.0
Base Operating T emperature	°C	-20	-	+70	-20	-	+70	-20	-	+70
Humidity (Non-Condensing)	%	0.0	-	95	0.0	-	95	0.0	-	95
Altitude (Operating)	ft	0.0	-	16,000	0.0	-	16,000	0.0	-	16,000
Altitude (Storage)	ft	0.0	-	60,000	0.0	-	60,000	0.0	-	60,000
DC Power	V	-21.0	-	-56.0	-21.0	-	-56.0	-21.0	-	-56.0
DC Current @ +12 Volts	Α	-	4.5	5.0	-	6.5	7.0	-	8.5	9.0

<sup>(1)</sup> Units meet intermed specifications using 2, 3, or 4 tones at radio stack outputs of +27 dBm - 5W/+30 dBm - 10W/+33 dBm - 15W.