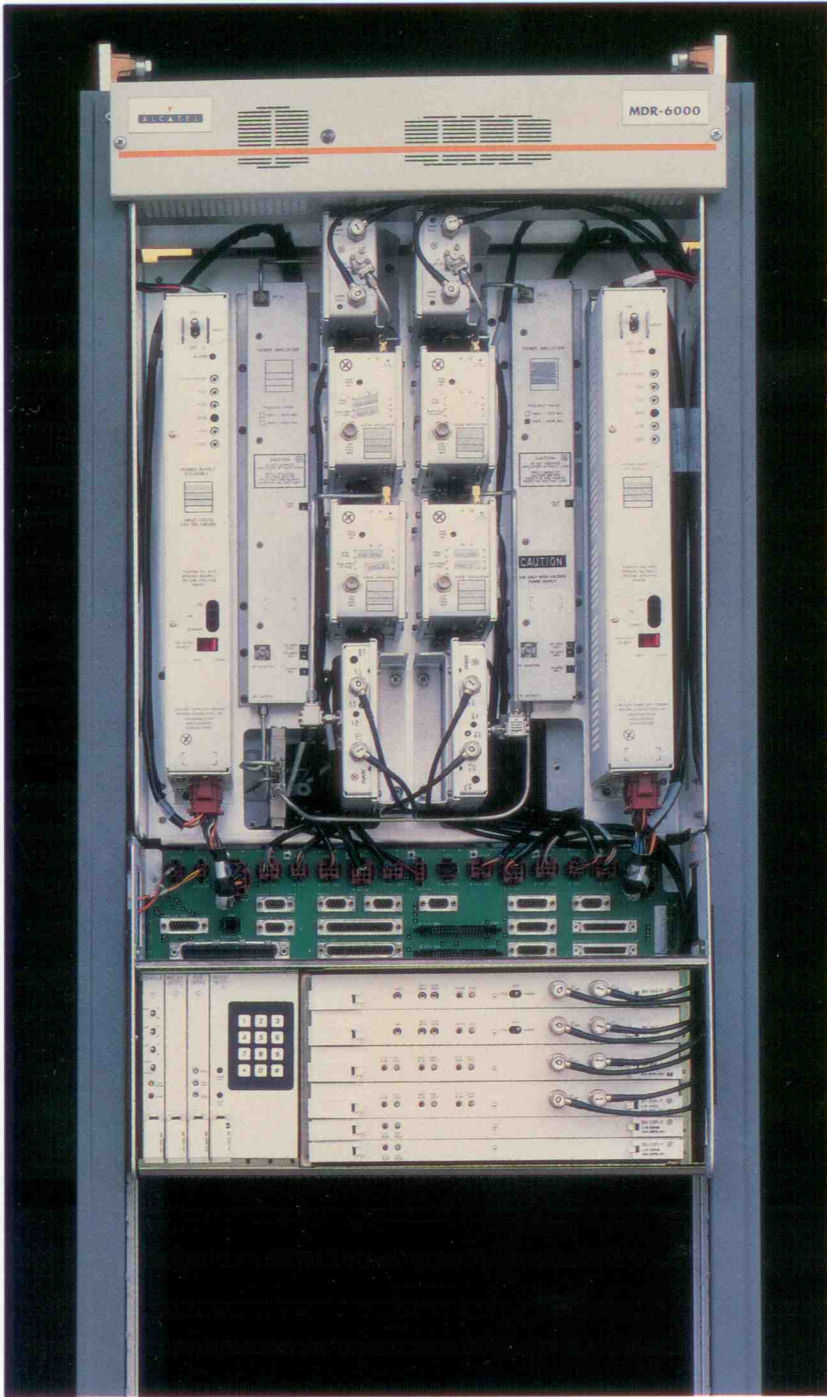


6-GHz Digital Radio

MDR-6X06

Features

- ▼ Capacities to fit your needs:
 - 2, 4, 8, 12 and 16 DS1s
 - Expand with no price penalty
- ▼ In-service capacity upgrades
- ▼ State of the art modulation choices
 - 32 TCM for maximum system gain
 - 128 TCM for maximum spectrum efficiency
- ▼ Exceeds all new FCC rules
- ▼ Digital filtering ensures superior frequency coordination characteristics
- ▼ Error-free receiver switching
- ▼ Link monitor channel
- ▼ Time domain equalizer *standard*
- ▼ Automatic power control *standard*
- ▼ Two year warranty



▼
ALCATEL
NETWORK SYSTEMS

Technical Summary

	MAXIMUM SYSTEM GAIN				
	<u>MDR-6506-2</u>	<u>MDR-6506-4</u>	<u>MDR-6506-8</u>	<u>MDR-6506-12</u>	<u>MDR-6506-16</u>
Frequency band (GHz)	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125
Emission designator	1M25D7W	2M50D7W	3M75D7W	N/A	N/A
RF channel bandwidth (MHz)	1.25	2.5	3.75	5.25	7.0
Capacity/RF channel (DS1s)	2	4	8	12	16
Modulation (TCM)	32	32	32	32	32
FCC identifier	JF6-9401	JF6-9402	JF6-9403	N/A	N/A
System gain (BER = 10 ⁻⁶) (dB)*	118	115	112	110	109
Transmitter power output (dBm)*	29	29	29	29	29
Optional power outputs (dBm)*	15, 31	15, 31	15, 31	15, 31	15, 31
Receiver threshold (BER = 10 ⁻⁶) (dBm)*	-89	-86	-83	-81	-80
Maximum RSL for 10 ⁻³ BER (dBm)	-10	-10	-10	-10	-10
Dispersive fade margin	68	64	55	52	50
Threshold/Interference					
Cochannel (dB)	28	28	28	28	28
Adjacent channel (dB)	-8	-8	-8	-8	-8

	MAXIMUM SPECTRAL EFFICIENCY				
	<u>MDR-6706-2</u>	<u>MDR-6706-4</u>	<u>MDR-6706-8</u>	<u>MDR-6706-12</u>	<u>MDR-6706-16</u>
Frequency band (GHz)	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125	5.8 - 7.125
Emission designator	800KD7W	1M25D7W	2M50D7W	3M75D7W	5M00D7W
RF channel bandwidth (MHz)	0.8	1.25	2.5	3.75	5.0
Capacity/RF channel (DS1s)	2	4	8	12	16
Modulation (TCM)	128	128	128	128	128
FCC identifier	JF6-9404	JF6-9405	JF6-9406	JF6-9407	JF6-9408
System gain (BER = 10 ⁻⁶) (dB)*	114	111	108	106	105
Transmitter power output (dBm)*	29	29	29	29	29
Optional power outputs*	15, 31	15, 31	15, 31	15, 31	15, 31
Receiver threshold (BER = 10 ⁻⁶) (dBm)*	-85	-82	-79	-77	-76
Maximum RSL for 10 ⁻³ BER (dBm)	-10	-10	-10	-10	-10
Dispersive fade margin	71	67	58	55	53
Threshold/Interference					
Cochannel (dB)	34	34	34	34	34
Adjacent channel (dB)	-8	-8	-8	-8	-8

Power Requirements

Input voltage	±19 V dc to ±56 V dc
Typical power consumption per T/R	130 watts

Mechanical Dimensions and Interfaces

Size	33.25 x 19.0 x 14.5 in.
Weight (Hot-standby terminal)	150 lb.
RF In/Out	CMR-137
DS1 In/Out	Two 37 pin D-type (one xmtr, one rcvr)
Orderwire handset	Standard telephone handset jack

Environmental

Ambient temperature	
Specification compliant	0° to 50°C
Operating without failure	-20° to 70°C
Storage	-40° to 80°C
Relative humidity	5 to 95% noncondensing
Altitude	
Operating	-350 to 16,500 ft
Nonoperating	-350 to 40,000 ft
Duty	Continuous, unattended

NOTE: These specifications are subject to change without notice.

*Typical as measured at the antenna port of branching circulator (includes branching losses) for nonstandby and hot-standby/space diversity configurations.

Hot-standby configurations will have 1 dB less receiver threshold on the A side and 10 dB less receiver threshold on the B side.

