



**TEST REPORT**  
**ON**  
**0.5 TO 18 GHz**  
**SINGLE POLE FOUR THROW**  
**REFLECTIVE / NON-ABSORPTIVE SWITCH MODULE**

**AMC MODEL No:**  
**MSN-4DR-06-STANDARD**  
**OPTION B02**

**Serial Numbers: 4MS810328 THRU 4MS810336**

**DESIGNED**  
**BY**  
**R. Afable**

**TESTED**  
**BY**  
**R. Butler / B. James**

**REPORTED**  
**BY**  
**E. Elder**

**August 10, 2004**

**AMERICAN MICROWAVE CORPORATION., 7311-G Grove Road, Frederick, MD 21704**  
**Tel: 301-662-4700 • Fax: 301-662-4938 • Email: [sales@americanmicrowavecorp.com](mailto:sales@americanmicrowavecorp.com)**  
**Website: <http://www.americanmicrowavecorp.com>**

**ISO9001 : 1994 CERTIFIED**

*Handwritten signatures and initials:*  
MDJ, JRH, JDT, CC, PH, SEM

## TABLE OF CONTENTS

●	PRODUCT DESCRIPTION AND ELECTRICAL SPECIFICATIONS	PAGE 3
●	PRODUCT FEATURE AND ENVIRONMENTAL SPECIFICATIONS	PAGE 4
●	TEST DATA ON MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBERS 4MS810328 THRU 4MS810336	PAGE 5
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810328	PAGE 6
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810329	PAGE 7
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810330	PAGE 8
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810331	PAGE 9
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810332	PAGE 10
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810333	PAGE 11
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810334	PAGE 12
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810335	PAGE 13
●	TEST DATA FOR MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER 4MS810336	PAGE 14

## SINGLE POLE FOUR THROW, RECTANGULAR REFLECTIVE / NON-TERMINATED SWITCH MODULE AMC MODEL No: MSN-4DR-06-STD OPTIONS B02

### FEATURES:

- **-15 V POWER SUPPLIES**
- **0.5 TO 18 GHz**
- **75 nS ON/OFF HIGH SPEED**
- **REFLECTIVE**



### SPECIFICATIONS:

- |                  |  |
|------------------|--|
| • FREQUENCY      | : 0.5 TO 18 GHz                              |
| • INSERTION LOSS | : 3.0 dB                                     |
| • ISOLATION      | : 0.5 TO 2.0 GHz: 60 dB                      |
|                  | : 2.0 TO 18.0 GHz: 70 dB                     |
| • VSWR           | : 2.0:1                                      |
| • SPEED          | : RISE: 10 nS TYPICAL, 15 nS MAXIMUM         |
|                  | : FALL: 10 nS TYPICAL, 15 nS MAXIMUM         |
|                  | : DELAY ON: 75 nS TYPICAL, 100 nS MAXIMUM    |
|                  | : DELAY OFF: 75 nS TYPICAL, 100 nS MAXIMUM   |
| • POWER INPUT    | : (CW)+20dBm (STANDARD), +10dBm (HIGH SPEED) |
| • SURVIVAL POWER | : 1 WATT CW, 10 WATTS PEAK 1 uSEC            |
| • CONTROL        | : TTL LOGIC "0"=ON, "1"=OFF                  |
| • POWER SUPPLY   | : +5 V @ 200 mA MAXIMUM                      |
|                  | : -15 V @ 75 mA MAXIMUM                      |

## PRODUCT FEATURE

ZONE	REV.	DESCRIPTION	DATE	APPROVED
		ORIGINAL RELEASE	1/14/98	

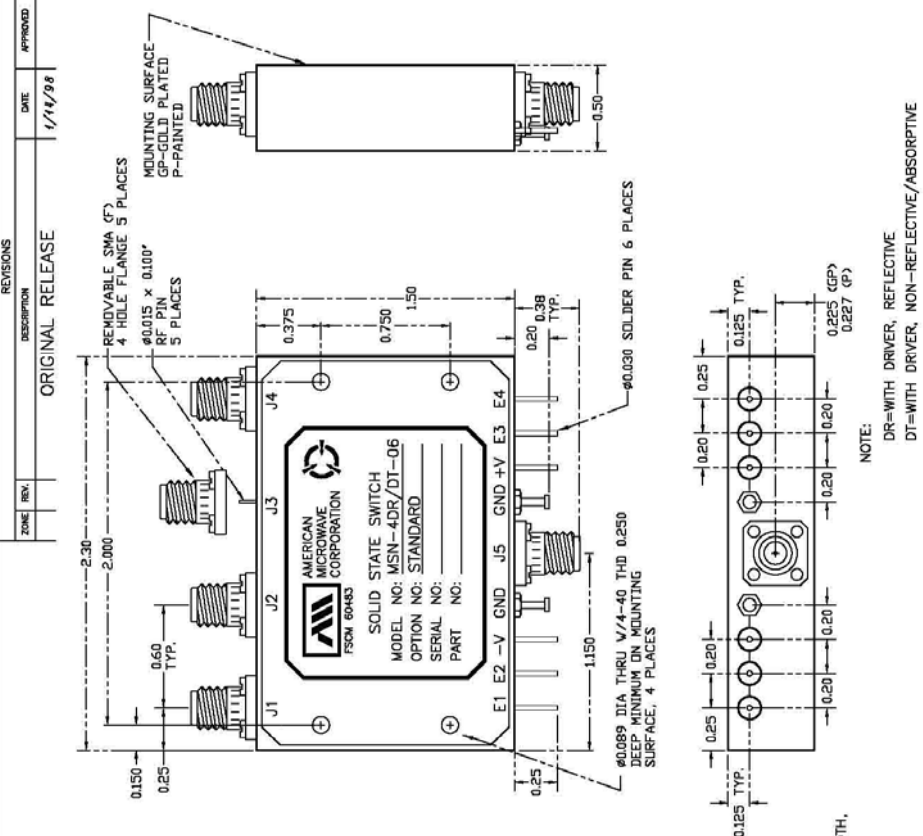
**SPECIFICATIONS:**

- FREQUENCY: 0.5 GHz TO 18 GHz
- REFLECTIVE: 3.0db
- ABSORPTIVE: 3.75db
- ISOLATION: 0.5 GHz TO 2 GHz: 60db
- 2 GHz TO 18 GHz: 70db
- YSWR: REFLECTIVE IN/OUT: 2.0:1
- ABSORPTIVE IN/OUT: 2.0:1
- ABSORPTIVE OUT/OFF: 2.0:1
- SPEED: RISE: 10ns TYPICAL, 15ns MAX
- FALL: 10ns TYPICAL, 15ns MAX
- DELAY ON: 75ns TYPICAL, 100ns MAX
- DELAY OFF: 75ns TYPICAL, 100ns MAX
- POWER INPUT: (CW)+20dbm (STANDARD), +10 dbm (HIGH SPEED)
- SURVIVAL POWER: 1 WATT CW, 10 WATTS PEAK 1 usec
- CONTROL: TTL LOGIC "0"=ON "1"=OFF
- POWER SUPPLY: +5V @ 200 mA MAX.
- -5V @ 75mA MAX.(REFLECTIVE)
- 100mA MAX.(ABSORPTIVE/NON-REFLECTIVE)

**OPTIONS:**

INDEPENDENT CONTROL WITH SOLDER PIN STANDARD

- DEC-MP: 2 BIT DECODER WITH MULTIPIN
- DEC-SP: 2 BIT DECODER WITH SOLDER PIN
- MP-IND: INDEPENDENT CONTROL WITH MULTIPIN
- 10M18: 10 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 10 MHz AND 0.5db AT 18 GHz)
- 100M18: 100 MHz TO 18 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 0.5db AT 18 GHz)
- 118: 1 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 218: 2 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 412: 4 GHz TO 12.4 GHz (NO CHANGE IN INSERTION LOSS)
- 618: 6 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 1218: 12 GHz TO 18 GHz (NO CHANGE IN INSERTION LOSS)
- 100M20: 100 MHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.5db AT 100 MHz AND 1.0db AT 20 GHz)
- 220: 2 GHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.0db AT 20 GHz)
- 1020: 10 GHz TO 20 GHz (INSERTION LOSS INCREASES BY 1.0db AT 20 GHz)
- B01: -12V POWER SUPPLIES
- B02: -15V POWER SUPPLIES
- B03: REVERSE LOGIC "1"=ON "0"=OFF
- B04: DRIVERLESS, CURRENT CONTROLLED
- B05: HIGH SPEED, TURNON/TURNOFF 25 nsec MAXIMUM WHEN APPLICABLE
- B06: HIGH POWER - SPECIFY CW POWER, PULSE WIDTH, DUTY CYCLE, RF FREQUENCY AND BANDWIDTH
- B07: CUSTOM DESIGNED PRODUCT - SPECIFY INITIALS OF CUSTOMER
- B08: LOW VIDEO TRANSIENTS - SPECIFY VIDEO BANDWIDTH
- B09: LOW INSERTION LOSS VERSION
- B10: HIGHER ISOLATION VERSION
- B11: 0.4" THICK VERSION WITH REMOVABLE 2 HOLE FLANGE SMA (F)



**SOLID STATE SWITCH**  
 MODEL NO: MSN-4DR/DI-06  
 OPTION NO: STANDARD  
 SERIAL NO:  
 PART NO:

AMERICAN MICROWAVE CORPORATION  
 FSON 60483

REMOVABLE SMA (F)  
 4 HOLE FLANGE 5 PLACES  
 40.015 X 0.010"  
 RF PIN  
 5 PLACES

MOUNTING SURFACE  
 GP-COLLIM PLATED  
 P-PAINTED

DR=WITH DRIVER, REFLECTIVE  
 DT=WITH DRIVER, NON-REFLECTIVE/ABSORPTIVE

NOTE:  
 DR=WITH DRIVER, REFLECTIVE  
 DT=WITH DRIVER, NON-REFLECTIVE/ABSORPTIVE

**ENVIRONMENTAL RATINGS:**

- TEMPERATURE: -55C TO +55C (OPERATING)
- -65C TO +125C (STORAGE)
- HUMIDITY: MIL-STD-202F, METHOD 103B COND. B
- SHOCK: MIL-STD-202F, METHOD 213B COND. B
- VIBRATION: MIL-STD-202F, METHOD 2040 COND. B
- ALTITUDE: MIL-STD-202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL-STD-202F, METHOD 107D COND. A

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES

TOLERANCES:  
 X.XX ±0.020  
 X.XXX ±0.010

PART NO.	AMERICAN MICROWAVE CORPORATION FREDERICK, MARYLAND
DATE	1/14/98
DESIGNER	WJG
CHECKED	
ESCALD	
TITLE	OUTLINE DRAWING MSN-4DR/DI-06-STANDARD REFLECTIVE OR NON-REFLECTIVE/ABSORPTIVE SOLID STATE SWITCH
SIZE	A
FORM NO.	60483
DWG NO.	100-4297-1
REV.	

## FINAL TEST DATA

FINAL TEST DATA SHEETS

FOR

AMC MODEL NUMBER

**MSN-4DR-06-STANDARD  
OPTION B02**

Serial Numbers:

**4MS810328 THRU 4MS810336**

**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810328

FORM: SW 01/069S



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80720-2E MODEL NO: MSN-4DR-06 SERIAL NO: 4MS810328  
 CUSTOMER: Aeroflex Lintek TECHNICIAN: R. Butler  
 SPECIFICATION: Standard FREQUENCY RANGE: 0.56GHz to 18.06GHz  
+5V 150mA  
-15V 30mA

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.66 dB	12.71 dB	1.60 : 1	14.45 dB	1.46 : 1		
J5-J2 2.61 dB	10.72 dB	1.79 : 1	10.92 dB	1.79 : 1		
J5-J3 2.95 dB	10.35 dB	1.87 : 1	9.90 dB	1.94 : 1		
J5-J4 2.73 dB	14.30 dB	1.47 : 1	13.26 dB	1.55 : 1		

SWITCHING SPEED						
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME		
J5-J1 770 dB	60 ns	5 ns	38 ns	2 ns		
J5-J2 770 dB	58 ns	4 ns	42 ns	2 ns		
J5-J3 770 dB	55 ns	7 ns	42 ns	3 ns		
J5-J4 770 dB	55 ns	5 ns	40 ns	2 ns		

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8752A HP

TEST : E#30  
 QA/QC : MB  
 DATE : 10/28/98

**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810329

FORM: SW-01/0698



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80120-1E MODEL NO: msn-4DR-06 SERIAL NO: 4825810329

CUSTOMER: Aeroflex Lintek TECHNICIAN: R. Butler

SPECIFICATION: Standard FREQUENCY RANGE: 0.5GHz to 18.0GHz

+5V +160mA  
 -15V -45

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.87 dB	12.10 dB	1.66:1	12.95 dB	1.58:1		
J5-J2 2.73 dB	12.51 dB	1.62:1	14.14 dB	1.49:1		
J5-J3 2.90 dB	12.49 dB	1.62:1	14.86 dB	1.44:1		
J5-J4 2.78 dB	12.60 dB	1.61:1	14.18 dB	1.49:1		

SWITCHING SPEED				
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME
J5-J1 770 dB	52 ns	10 ns	29 ns	2 ns
J5-J2 770 dB	46 ns	6 ns	30 ns	2 ns
J5-J3 770 dB	48 ns	6 ns	29 ns	2 ns
J5-J4 770 dB	52 ns	10 ns	29 ns	2 ns

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8757A HP

TEST: UBJ #28  
 QA/QC: QERMC  
 DATE: 10-31-98

**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810330

FORM: SW-01/0698



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80920-2E MODEL NO: MSN-4DR-06 SERIAL NO: 4MS810330  
 CUSTOMER: Aeroflex Lintek TECHNICIAN: R. Butler  
 SPECIFICATION: Standard FREQUENCY RANGE: 0.5GHz to 18.0GHz  
+5V 150mA  
-15V 30mA

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.65 dB	11.10 dB	1.77:1	13.63 dB	1.52:1		
J5-J2 2.66 dB	12.60 dB	1.61:1	11.84 dB	1.69:1		
J5-J3 2.72 dB	10.12 dB	1.70:1	10.83 dB	1.80:1		
J5-J4 2.76 dB	12.69 dB	1.60:1	13.90 dB	1.50:1		

SWITCHING SPEED					
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME	
J5-J1 770 dB	54 ns	10 ns	30 ns	2	ns
J5-J2 770 dB	46 ns	4 ns	29 ns	2	ns
J5-J3 770 dB	50 ns	5 ns	30 ns	2	ns
J5-J4 770 dB	57 ns	10 ns	29 ns	2	ns

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8757A HP

TEST: E #30  
 QA/QC: Q2 RMC  
 DATE: 10-30-98



**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810331

FORM: SW-01/0698



DATE: 10-28-08

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80720-2E MODEL NO: msn-4DR-06 SERIAL NO: 4825810331  
 CUSTOMER: Aeroflex Lintek TECHNICIAN: R. Butler  
 SPECIFICATION: Standard FREQUENCY RANGE: 0.5GHz to 18.06GHz

+5V 150mA  
 -15V 30mA

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.65 dB	12.08 dB	1.66:1	12.44 dB	1.62:1		
J5-J2 2.54 dB	11.99 dB	1.67:1	12.91 dB	1.58:1		
J5-J3 2.66 dB	11.39 dB	1.73:1	11.30 dB	1.74:1		
J5-J4 2.55 dB	12.62 dB	1.61:1	13.38 dB	1.54:1		

SWITCHING SPEED				
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME
J5-J1 770dB	52 ns	9 ns	29 ns	2 ns
J5-J2 770dB	51 ns	7 ns	29 ns	2 ns
J5-J3 770dB	52 ns	7 ns	29 ns	2 ns
J5-J4 770dB	49 ns	6 ns	29 ns	2 ns

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8752A HP

TEST: E#30  
 QA/QC: PA  
 DATE: 10/28/08



**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810332

FORM: SW-01/0698



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80120-2E MODEL NO: msn-4DR-06 SERIAL NO: 4825810332  
 CUSTOMER: Aeroflex Lintek TECHNICIAN: R. Butler  
 SPECIFICATION: Standard FREQUENCY RANGE: 0.56GHz to 18.06GHz  
+5V 150mA  
-15V 30mA

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.69 dB	12.87 dB	1.58:1	13.48 dB	1.53:1		
J5-J2 2.60 dB	12.19 dB	1.65:1	14.32 dB	1.47:1		
J5-J3 2.76 dB	10.78 dB	1.81:1	13.88 dB	1.50:1		
J5-J4 2.69 dB	11.38 dB	1.73:1	13.08 dB	1.57:1		

SWITCHING SPEED				
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME
J5-J1 770 dB	47 ns	6 ns	30 ns	3 ns
J5-J2 770 dB	45 ns	3 ns	31 ns	4 ns
J5-J3 770 dB	45 ns	3 ns	31 ns	4 ns
J5-J4 770 dB	47 ns	6 ns	30 ns	4 ns

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8752A HP

TEST: E #30  
 QA/QC: Q2 RMC  
 DATE: 10-30-98

**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810333

FORM: SW-01/069S



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80720-2E MODEL NO: msn-4DR-06 SERIAL NO: 4MS810333  
 CUSTOMER: AeroFlex Lintek TECHNICIAN: R Butler  
 SPECIFICATION: Standard, B02 FREQUENCY RANGE: 0.5GHz to 18.0GHz  
+5V 150mA  
-15V 30mA

INSERTION LOSS	RETURN LOSS					
	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.61 dB	12.06 dB	1.66:1	13.08 dB	1.56:1		
J5-J2 2.60 dB	12.87 dB	1.58:1	16.44 dB	1.35:1		
J5-J3 2.84 dB	14.36 dB	1.47:1	11.40 dB	1.73:1		
J5-J4 2.66 dB	12.30 dB	1.64:1	13.28 dB	1.55:1		

ISOLATION	SWITCHING SPEED							
	DELAY ON		RISE TIME		DELAY OFF		FALL TIME	
J5-J1 770dB	45	ns	5	ns	30	ns	2	ns
J5-J2 770dB	50	ns	9	ns	30	ns	3	ns
J5-J3 770dB	53	ns	10	ns	30	ns	3	ns
J5-J4 770dB	50	ns	7	ns	30	ns	2	ns

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8752A HP

TEST: E#30

QA/QC: PK

DATE: 10/20/98



**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810334

FORM: SW 01/069S

AMERICAN MICROWAVE CORPORATION  
 7311-G GROVE ROAD, FREDERICK, MD 21704  
 TEL (301)662-4700 FAX (301)662-4938

DATE: 30 Oct 98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80120-1E MODEL NO: MSN-4DR-06 SERIAL NO: 4MS810334  
 CUSTOMER: AEROFLEX LINTEK TECHNICIAN: B. JAMES  
 SPECIFICATION: OPT: B02 FREQUENCY RANGE: 0.5-18 GHz  
 $I_{S\text{VDC}} = +150\text{mA}$   
 $I_{S\text{VDC}} = -30\text{mA}$

RETURN LOSS						
INSERTION LOSS	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
IS-J1	2.76 dB	10.79 dB	1.81 :1	13.46 dB	1.54 :1	
IS-J2	2.71 dB	12.94 dB	1.58 :1	11.70 dB	1.70 :1	
IS-J3	2.74 dB	9.96 dB	1.93 :1	9.83 dB	1.95 :1	
IS-J4	2.80 dB	10.50 dB	1.85 :1	12.89 dB	1.59 :1	

SWITCHING SPEED					
ISOLATION	DELAY ON	RISE TIME	DELAY OFF	FALL TIME	
IS-J1	>70 dB	54 NS	10 NS	36 NS	2 NS
IS-J2	>70 dB	52 NS	4 NS	35 NS	2 NS
IS-J3	>70 dB	53 NS	6 NS	40 NS	4 NS
IS-J4	>70 dB	50 NS	4 NS	34 NS	3 NS

TE: Any additional Test Data on Back

TESTED ON: 8350B/8757A HP

TEST: WB2 #26  
 QA/QC: Q2 RMC  
 DATE: 10-31-98



**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810335

FORM: SW-01/0698



DATE: 10-28-98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80120-2E MODEL NO: msn-4DR-06 SERIAL NO: 4825810335  
 CUSTOMER: Aeroflex Lintek TECHNICIAN: R Butler  
 SPECIFICATION: Standard FREQUENCY RANGE: 0.56GHz to 18.06GHz  
+5V 150mA  
-15V 30mA

INSERTION LOSS	RETURN LOSS					
	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.72 dB	11.40 dB	1.73:1	13.86 dB	1.50:1		
J5-J2 2.56 dB	12.45 dB	1.62:1	13.82 dB	1.51:1		
J5-J3 2.34 dB	12.70 dB	1.60:1	13.97 dB	1.50:1		
J5-J4 2.63 dB	11.48 dB	1.72:1	12.70 dB	1.60:1		

ISOLATION	SWITCHING SPEED				
	DELAY ON	RISE TIME	DELAY OFF	FALL TIME	
J5-J1 770dB	49 ns	9 ns	30 ns	2 ns	
J5-J2 770dB	48 ns	7 ns	30 ns	3 ns	
J5-J3 770dB	45 ns	5 ns	30 ns	3 ns	
J5-J4 770dB	49 ns	8 ns	32 ns	5 ns	

NOTE: Any additional Test Data on Back

TESTED ON: 8350B/8757A HP

TEST: E#30  
 QA/QC: 02 RMC  
 DATE: 10-30-98



**FINAL TEST DATA**

AMC MODEL NO: MSN-4DR-06-STANDARD OPTIONS B02, SERIAL NUMBER: 4MS810336

FORM: SW-01/0698



DATE: 30 Oct 98

MICROWAVE SWITCH FINAL TEST DATA

JOB NO: 80120-1E MODEL NO: MSN-4DR-06 SERIAL NO: 4MS810336  
 CUSTOMER: AEROFLEX LINTK TECHNICIAN: B. JAMES  
 SPECIFICATION: OPT: B02 FREQUENCY RANGE: 0.5-18 GHz

VDC I = +150mA  
 VDC I = -30mA

INSERTION LOSS	RETURN LOSS					
	INPUT dB	INPUT VSWR	OUTPUT ON dB	OUTPUT ON VSWR	OUTPUT OFF dB	OUTPUT OFF VSWR
J5-J1 2.66 dB	11.35 dB	1.74 : 1	12.48 dB	1.63 : 1		
J5-J2 2.80 dB	12.78 dB	1.60 : 1	11.74 dB	1.70 : 1		
J5-J3 2.73 dB	13.12 dB	1.57 : 1	13.34 dB	1.55 : 1		
J5-J4 2.63 dB	11.25 dB	1.76 : 1	14.17 dB	1.48 : 1		

ISOLATION	SWITCHING SPEED			
	DELAY ON	RISE TIME	DELAY OFF	FALL TIME
J5-J1 >70 dB	52 NS	6 NS	33 NS	2 NS
J5-J2 >70 dB	60 NS	9 NS	35 NS	3 NS
J5-J3 >70 dB	53 NS	9 NS	35 NS	2 NS
J5-J4 >70 dB	54 NS	10 NS	34 NS	2 NS

DTE: Any additional Test Data on Back

TESTED ON: 8350B/8757A HP

TEST: WB #26  
 QA/QC: QR RMC  
 DATE: 10-31-98