



MTI Wireless Edge Ltd.

רחוב המלאכה 11 פארק תעשייה אפק ראש העין 48091 ישראל
11 Hamelacha St., Afek Industrial Park, Rosh Ha'ayin 48091 Israel
Tel: 972-3-9008900 טל, Fax: 972-3-9008901: פקס
www.mtiwe.co.il

SPECIFICATION FOR MT – 182018/NLH READER ANTENNA 430 - 440 MHz, 4 dBic

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MTI WIRELESS EDGE LTD.	MT – 182018/NLH	REV-D
SCALE: NONE	DOC NO. RD41924300C	SHEET 1 OF 4

REVISION RECORD				
REV	ECO	DESCRIPTION	APVD	DATE
A	CV19	RELAESD	Yael H.	23.7.06
B	1492	UPDATE SPEC	Yael H.	7.9.06
C	1514	CHANGE WEIGHT	Yael H.	4.10.06
D	1559	UPDATE SPEC	Yael H.	14.11.06

SHEET	43	44	45	46	47	48	49	50	51	52	53	54	55	56
REV														
SHEET	29	30	31	32	33	34	35	36	37	38	39	40	41	42
REV														
SHEET	15	16	17	18	19	20	21	22	23	24	25	26	27	28
REV														
SHEET	1	2	3	4	5	6	7	8	9	10	11	12	13	14
REV	D	D	D	D										

PRODUCT STATUS:			
☐ PROPOSAL	☐ IN DEVELOPMENT	☐ PREPRODUCTION	☒ PRODUCTION

CONTRACT NO			
ACTION	NAME	SIGN	DATE
PREP	Yael Harash	Yael H.	2.7.06
CHKD	DOV FEINER	D.F	20.7.06
CHKD			
CHKD			
DSGN	SERGEY ZEMLYAKOV	S.Z	2.7.06
PROJ	ALEX DRAGILEV	A.D	2.7.06
MFG			
QA	MOTI MOTOVICH	H.G	3.7.06
MARK.	DAVID SHANI	S.D	3.7.06

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SPECIFICATION

FLAT PANEL READER ANTENNA

MTI PART NUMBER	MT – 182018/NLH
REGULATORY COMPLIANCE	RoHS , CE 0682
<u>1. ELECTRICAL</u>	
FREQUENCY RANGE	430 - 440 MHz
GAIN	3.5 dBic (min) 4 dBic (typ)
VSWR	1.3:1 (typ) 1.5:1 (max) @ 430-435 MHz 1.5:1 (typ) 1.7:1 (max) @ 436-440 MHz
AZIMUTH 3 dB BEAMWIDTH	88° (typ)
ELEVATION 3 dB BEAMWIDTH	88° (typ)
POLARIZATION	LHCP
FRONT TO BACK	-15 dB (max)
AXIAL RATIO AT BORESIGHT	3 dB (max) @ 430 – 431 MHz 2 dB (max) @ 432 – 434 MHz 3.5 dB (max) @ 435 – 437 MHz 6 dB (max) @ 438 – 440 MHz
INPUT IMPEDANCE	50 (Ohm)
INPUT POWER	6 W (max)
LIGHTNING PROTECTION	DC Grounded
<u>2. MECHANICAL</u>	
DIMENSIONS (LxWxD)	305x305x25 mm (max)
ORIENTATION	Rectangular
WEIGHT	2.3 kg (max)
CONNECTOR	N - type Female
RADOME	Plastic
BASE PLATE	Aluminum with chemical conversion coating
OUTLINE DRAWING	RD41924700C
<u>3. MOUNTING KIT</u>	SEE RD41191800C

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4. ENVIRONMENTAL				
TEST	STANDARD	DURATION	TEMPERTURE	NOTES
LOW TEMPERATURE	IEC 68-2-1	72 h	-55℃	-
HIGH TEMPERATURE	IEC 68-2-2	72 h	+71℃	-
TEMP. CYCLING	IEC 68-2-14	1 h	-45℃ +70℃	3 Cycle s
THERMAL SHOCK NONO-OPERATING			-30℃ to +70℃	Ramp 30℃/min
HUMIDITY	ETSI EN300-2-4 T4.1E	144 h	-	95%
WATER TIGHTNESS	IEC 529	-	-	IP67
DUST RESISTANCE				IP67
SOLAR RADIATION	ASTM G53	1000 h	-	-
OZONE RESISTANCE	ETSI 300			
FLAMMABILITY	UL 94	-	-	Class HB
QUASI RANDOM VIBRATION				20g rms for 4 hours
VEHICLE VIBRATION OPERATING	1g rms, 10-500 Hz, in 3 axis			6 hours total, 2 hr in each axis. Accelerated wear – an additional 50hrs in worst case axis.
MECHANICAL SHOCK OPERATING	10g, 11 msec, half sine pulse			

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