



SUMMARY OF ACTIVE DEVICES

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Section B	GLI3 - Group Line Interface
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Global Telecom Solutions Sector

APPLICANT: MOTOROLA

FCC ID: IHET5DJ1

SUMMARY OF ACTIVE DEVICES

Section A

MPC6 – Multicoupler Preselector Card

Multicoupler Preselector Card (MPC6)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MMPT3906LT1	Transistor PNP 40V 2A	D.C.
MMBT3904LT1	Transistor NPN 40V 2A	D.C.
MC33164D-5R2	IC Undervolt Sensing Ckt, Motorola	D.C.
MMSZ6685T	Zener Diode 3.9V 500mV, Motorola	D.C.
MMBD6050LT1	Diode 70V, 5A, Motorola	D.C.
HSMP-3800-L31	RF PIN Diode	1850-1910 MHz
PALCE22VIOH-15JC/4	IC Programmable Logic Device	D.C.
BRPG1204W-TR	Bicolor LED 70mA 2.5V	D.C.
BCW69	Transistor PNP	D.C.
CFK-0301	RF FET	1850-1910 MHz
MGA-82563	IC RF Amplifier	1850-1910 MHz
SNA-486	IC RF Amplifier	1850-1910 MHz
MMBZV6ALT1	Dual Diode Common Anode 5.6V	D.C.
MC33060ADR2	PWM Control Circuit	D.C.
MTD2955ET4	Power MOSFET Pch 60V, 12A	D.C.
MBRD340T4	Rectifier Schottky, 3A, 40V	D.C.
MC33182DR2	Low Pwr Dual Op-Amp	D.C.
P6SMB12CAT3	12V Transient Suppressor	D.C.

Multicoupler Preselector Card (MPC6) (continued)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MMBD7000	Zener Diode	D.C.
RELAY_G6S_2G_DC12	DPDT 12V Relay	D.C.
MBRS140T3	Schottky Rectifier40V 1A	D.C.
LT1054IS	IC Voltage Converter with Regulator	D.C.
LM317	Adj. Voltage Regulator 500mA	D.C.
X9241	IC CMOS Quad EEPOT	D.C.
MC3303DR2	IC Gen Purpose Quad Op-Amp	D.C.
X2502D	IC EPROM 256x8	D.C.



Global Telecom Solutions Sector

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SUMMARY OF ACTIVE DEVICES

Section B

GLI3 – Group Line Interface Card

Group Line Interface III (GLI3) Active Device List

Device Type	Component Description	Operating Frequency
DCS0502S-1	-9V Power Converter Module	100KHz
108612961	5V-3.3V,6A Power Module, VREG_00H05	1MHz
108612953	5V-2.5V,6A Power Module, VREG_00H06	1MHz
MC044X5-202	32.768MHz VCXO	32.768MHz
MMBD6050	Small Signal Switch Diode 70V	20MHz
CB3LV_3I_50	50MHz Clock Oscillator	50MHz
CB3LV_3I_25	25MHz Clock Oscillator	25MHz
CB3LV_2I_66	66MHz Clock Oscillator	66MHz
CB3LV_3I_20	20MHz Clock Oscillator	20MHz
DAC8562FS	12-bit DAC	100Hz
MPC8260A	PowerQUICCII 8260	66MHz (233MHz/166MHz Internal)
MSC8101	StarCore DPS	50MHz (250MHz/125MHz internal)
MC74ACT244	Octal Buffer/Line Driver with 3 State Outputs	DC - 66MHz
MC10ELT21	5V Differential PECL To TTL Translator	3MHz
MPC9446FA	2.5V and 3.3V LVCMOS Clock Fanout Buffer	66MHz
MC74LCX04	Low-Voltage CMOS Hex Inverter	DC - 20MHz
74LCX16244	Low-Voltage 16-Bit Buffer	DC - 66MHz
74LCX16245	Low-Voltage CMOS 16-Bit Transceiver	4MHz - 66MHz
DS1706	Watchdog/reset	2 MHz
PEB22554HT-V13	Quad Framer/LIU	16MHz
DP8392C	Coax Xcvr Interface	20MHz
MAX250	Isolated RS-232 Drivers/Receivers	9.6kHz -115kHz
MAX251	Isolated RS-232 Drivers/Receivers	9.6kHz -115kHz
SN74CBTD3384DBR	10-bit FET Bus Switch	DC - 32.768MHz
RC28F128J3A-150SL56M	Flash-Bulk 16MB	66MHz
DP83910AV	Serial Network Interface	20MHz
XCV1000E_CNTRL	1M Gate Xilinx FPGA	32.768MHz and 66MHz
MAX3232ESE	RS-232 Transceiver	115kHz
MAX4624	Analog Switch	1.5MHz - 2MHz
ADG774A	Analog Mux	62MHz
MT48LC16M16A2TG-7E	SDRAM 32MB	66MHz
MT48LC8M16A2TG-7E	SDRAM 16MB	66MHz
MT48LC2M32B2TG-7IT	SDRAM 8MB	50MHz
CY7B991V-5JI	Robo Clock	16MHz
HCPL0661	Optocoupler	9.6kHz -115kHz
W194-70	Zero Delay Buffer	16MHz
BCM5327M KQM	9-Port Ethernet Switch	25MHz
MT90823ABX90	3V TDM Switch	8MHz
BCM5222 KPF	PHY Transceiver	25MHz
EPM7256BF1256-7	High Performance CPLD	66MHz
SN65LBC170DB	Triple Differential Xcvr	4.8kHz - 4MHz



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SUMMARY OF ACTIVE DEVICES

Section C

BBX-1X – Broadband Transceiver Card

Broadband Transceiver/Digital Baseband Processor

800MHz BBX 1X

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequency</u>
LVCO3992U	oscillator	585 - 611MHz
LVCO3992U	oscillator	824 - 849MHz
SG615HC	oscillator	50MHz
BFP420	NPN transistor	238.4 MHz
BRPG1204W	Red/Green LED	0-2 Hz
MMBT3904LT1	NPN transistor	D.C.
MMDF2P02HD	P-channel mos FET	D.C.
MTB75N05HD	NPN transistor	D.C.
MMBT3904LT1	PNP transistor	D.C.
MMBT3906LT1	PNP transistor	D.C.
MBT3906DW1T1	NPN transistor	D.C.
MBT3904DW1T1	NPN transistor	D.C.
MMBT3904WT1	diode	19.6608 MHz
MBT3946DW1T1	dual PNP/NPN transistor	D.C.
MMBD301LT1	diode	D.C.
MMBZ5240BLT1	zener diode	D.C.
MMSZ5237BT1	zener diode	D.C.
MMSZ5243BT1	zener diode	D.C.
MBRD340T4	diode	D.C.

Broadband Transceiver/Digital Baseband Processor

800MHz BBX 1X

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequency</u>
MBR0530T1	Schottky Power Rectifier Diode	D.C.
MMBD7000LT1	Dual Switching Diode	D.C. & D.C.
MMBD914LT1	High-Speed Switching Diode	D.C.
HSM633	20 MHz Crystal Oscillator	20 MHz
HSMS-2825-L31	RF Schottky Barrier Diodes	6 MHz
BFG-541	Wideband Transistor	800 MHz
HSMS282k	RF Schottky Barrier Diodes	625 kHz & 800 MHz
MA4P274-1068	Dual PIN Diodes	800 MHz
AD826AR	opamp	D.C.
AD680	2.5 V Bandgap Reference	D.C.
max148beap	Analog to Digital Converter	694.4 kHz
LM2991S	Negative Low Dropout Adjustable Regulator	D.C.
MSM13R2850	DBP ASIC	0.5 Hz, 625 kHz, 19.6608 MHz, & 39.3216 MHz
74FCT162500ATPV	18-Bit Transceiver	19.6608 MHz & 39.3216 MHz
LTC1421IG	Hot Swap Controller	D.C.
MC68EN360ZP25VL	QUICC Processor	20 MHz
MC74HC4066DR2	Analog Mux	3 MHz
MC74VHCT244A	Dual Tri-state Buffer	625 kHz

Broadband Transceiver/Digital Baseband Processor

800MHz BBX 1X

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequency</u>
MC74ACT125DR2	Quad Tri-state Buffer	0.5 Hz, 2 Hz, 3 MHz, 19.6608 MHz, and 39.3216 MHz
MC10H641	PDECL-TTL 1:9 Clk Drvr	19.6608 MHz
MC10EL16DR2	PDECL Receiver	19.6608 MHz
MC100ELT23DR2	PDECL to TTL Translator	19.6608 MHz
MC10ELT21	PECL to TTL Converter	3 MHz & 19.6608 MHz
MC10EL11DR2	5V ECL 1:2 Differential Fanout Driver	19.6608 MHz
MC100EL58DR2	2:1 Multiplexer	19.6608 MHz
MC33063ADR2	DC to DC Converter	45 kHz
MC33161D	Univ Voltage Ref	D.C.
LM2903DR2	Dual Comparators	D.C.
MC74LCX02	Quad 2-Input NOR	20 MHz
MC74LCX08DTR2	Quad 2-Input AND	20 MHz
MC74LCX32DTR2	Quad 2-Input OR	20 MHz
MC74LCX244DTR2	Dual Tri-state Buffer	100 Hz, 9.6 kHz, 625 kHz, 1 MHz, 4.096 MHz,
MC74LCX125DTR2	Quad Tri-state Buffer	17 Hz & 625 kHz
MC74LCX574DTR2	Octal D-type Flip-Flop	19.6608 MHz
MC74LCX374	Octal D-type Flip-Flop	39.3216 MHz
DS1819AR-20	Reset/Watchdog Timer	2 Hz
AD6600	Analog to Digital Converter	19.6608 MHz & 39.3216

Broadband Transceiver/Digital Baseband Processor

800MHz BBX 1X

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequency</u>
TMP01ES	Programmable Temperature Controller	D.C.
AD603AR	opamp	0 - 1.2289 MHz
TLC5620ID	DAC Quad 8-Bit	625.0 KHz - 5.0 MHz
74ACT16244	Buffer/ Driver	D.C.
LT1081IS	RS-232 Transceiver	9.6 KHz
AT65-0413	Attenuator Digital	238.4 MHz
AD9767	14 Bit Dual Transmitt DAC	10.0 MHz
AD8402AR1	Power	625.0 KHz - 5.0 MHz
OPA2227	opamp	D.C.
RF2126	High Power Linear Amp	1800 - 2500 MHz
rf2484	Direct Quad. Modulator	800 - 2500 MHz
LP3965EMPX-ADJ	Voltage Regulator	D.C.
RF2172	Amp	585 -610 MHz
ispLSI2032VE-180LT44I	Lattice CPLD	0.5 Hz, 3 MHz, 19.6088 MHz, and 50 MHz
RC28F320C3BA110	Flash Memory	20 MHz
KM416V1204CT	DRAM	20 MHz
XCS40XL-4BG256I	Xilinc FPGA	.5 Hz, 10 MHz, 20 MHz, 19.6608 MHz, 39.3216 MHz
CY7B991-5JI	Prg. Skew Clk Buffer	19.6608 MHz

Broadband Transceiver/Digital Baseband Processor

800MHz BBX 1X

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequency</u>
ADF4118BRU	Oscillator	3.0 GHz
LM2991S	Voltage Regulator	D.C.
TPS71H01Q	Voltage Regulator	D.C.
XCV800-5BG560I0703	Xilinx FPGA	0.5 Hz, 0.625 - 5 MHz, 19.6608 MHz, 39.3216 MHz



Global Telecom Solutions Sector

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SUMMARY OF ACTIVE DEVICES

Section D

BBX-1X-HP – Broadband Transceiver Card

**Broadband Transceiver/Digital Baseband Processor
(800 MHz HP BBX 1X)**

Device Type	Component Description	Operating Frequencies
LVCO3992U	OSCILLATOR	585 - 611 MHz
LVCO3992U	OSCILLATOR	824 - 849 MHz
SG615HC	OSCILLATOR	50 MHz
BFP420	NPN TRANSISTOR	238.4 MHz
BRPG1204W	RED/GREEN LED	0 - 2 Hz
MMBT3904LT1	NPN TRANSISTOR	D.C.
MMDf2P02HD	P-CHANNEL MOS FET	D.C.
MTB75N05HD	NPN TRANSISTOR	D.C.
MMBT3904LT1	PNP TRANSISTOR	D.C.
MMBT3906LT1	PNP TRANSISTOR	D.C.
MBT3906DW1T1	NPN TRANSISTOR	D.C.
MBT3904DW1T1	NPN TRANSISTOR	D.C.
MMBT3904WT1	DIODE	19.6608 MHz
MBT3946DW1T1	DUAL PNP/NPN TRANSISTOR	D.C.
MMBD301LT1	DIODE	D.C.
MMBZ5240BLT1	ZENER DIODE	D.C.
MMSZ5237BT1	ZENER DIODE	D.C.
MMSZ5243BT1	ZENER DIODE	D.C.
MBRD340T4	DIODE	D.C.
MBR0530T1	SCHOTTKY POWER RECTIFIER DIODE	D.C.
MMBD7000LT1	DUAL SWITCHING DIODE	D.C. & D.C.
MMBD914LT1	HIGH-SPEED SWITCHING DIODE	D.C.
HSM633	20 MHz CRYSTAL OSCILLATOR	20 MHz
HSMS-2825-L31	RF SCHOTTKY BARRIER DIODE	6 MHz
BFG-541	WIDEBAND TRANSISTOR	800 MHz
HSMS282K	RF SCHOTTKY BARRIER DIODE	625 kHz & 800 MHz
HSMP-3810-TR1	DUAL PIN DIODES	800 MHz
AD826AR	OPAMP	D.C.
AD680	2.5 V BANDGAP REFERENCE	D.C.
MAX148BEAP	ANALOG TO DIGITAL CONVERTER	694.4 kHz
LM2991S	NEG LOW DROPOUT ADJ REGULATOR	D.C.
MSM13R2850	DBP ASIC	0.5 Hz, 625 kHz, 19.6608 MHz, 39.3216 MHz
74FCT162500ATPV	18-BIT TRANSCEIVER	19.6608 MHz & 39.3216 MHz
LTC14211G	HOT SWAP CONTROLLER	D.C.
MC68360ZP25VL	QUICC PROCESSOR	20 MHz
MC74HC4066DR2	ANALOG MUX	3 MHz
MC74VHCT244A	DUAL TRI-STATE BUFFER	625 kHz
MC74ACT125DR2	QUAD TRI-STATE BUFFER	0.5 Hz, 2 Hz, 3 MHz, 19.6608 MHz, 39.3216 MHz
MC10H641	PDECL-TTL 1:9 CLK DRIVER	19.6608 MHz
MC10EL16DR2	PDECL RECEIVER	19.6608 MHz
MC100ELT23DR2	PDECL TO TTL TRANSLATOR	19.6608 MHz
MC10ELT21	PECL TO TTL CONVERTOR	3 MHz, 19.6608 MHz
MC10EL11DR2	5V ECL 1:2 DIFFERENTIAL FANOUT DRIVER	19.6608 MHz

**Broadband Transceiver/Digital Baseband Processor
(800 MHz HP BBX 1X)**

Device Type	Component Description	Operating Frequencies
MC100EL58DR2	2:1 MULTIPLEXER	19.6608 MHz
MC33063ADR2	DC TO DC CONVERTOR	45 kHz
MC33161D	UNIT VOLTAGE REF	D.C.
LM2903DR2	DUAL COMPARATOR	D.C.
MC74LCX02	QUAD 2-INPUT NOR	20 MHz
MC74LCX08DTR2	QUAD 2-INPUT AND	20 MHz
MC74LCX32DTR2	QUAD 2-INPUT OR	20 MHz
MC74LCX244DTR2	DUAL TRI-STATE BUFFER	100 Hz, 9.6 kHz, 625 kHz, 1 MHz, 4.096 MHz
MC74LCX125DTR2	QUAD TRI-STATE BUFFER	17 Hz, 625 kHz
MC74LCX574DTR2	OCTAL D-TYPE FLIP FLOP	19.6608 MHz
MC74LCX374	OCTAL D-TYPE FLIP FLOP	39.3216 MHz
DS1819AR-20	RESET/WATCHDOG TIMER	2 Hz
AD600	ANALOG TO DIGITAL CONVERTOR	19.6608 MHz, 39.3216 MHz
TMP01ES	PROGRAMMABLE TEMP CONTROLLER	D.C.
AD603AR	OPAMP	0 - 1.2289 MHz
TLC5620ID	DAC QUAD 8-BIT	625 kHz - 5.0 MHz
74ACT16244	BUFFER/DRIVER	D.C.
AT65-0413	ATTENUATOR DIGITAL	238.4 MHz
AD9767	14 BIT DUAL TRANSMIT DAC	10.0 MHz
AD8402AR1	POWER	625 kHz - 5.0 MHz
OPA2227	OPAMP	D.C.
RF5187	HIGH POWER LINEAR AMP	869 - 894 MHz
RF2484	DIRECT QUAD MODULATOR	800 - 2500 MHz
LP3965EMPX-ADJ	VOLTAGE REGULATOR	D.C.
RF2172	AMP	585 - 610 MHz
ISPLSI2032VE-180LT44I	LATTICE CPLD	0.5 Hz, 3 MHz, 19.6088 MHz, 50 MHz
RC28F321C3BA110	FLASH MEMORY	20 MHz
KM416V1204CT	DRAM	20 MHz
XCS40XL-4BG256I	XILINC FPGA	.5 Hz, 10 MHz, 20 MHz, 19.6608 MHz, 39.3216 MHz
CY7B991-5JI	PROGRAMMABLE SKEW CLOCK BUFFER	19.6608 MHz
ADF4118BRU	OSCILLATOR	3.0 GHz
LM2991S	VOLTAGE REGULATOR	D.C.
TPS71H01Q	VOLTAGE REGULATOR	D.C.
XCV800-5BG560I0703	XILINC FPGA	0.5 Hz, 0.625 - 5 MHz, 19.6608 MHz, 39.3216 MHz
MMBD6100LT1	DIODE, DUAL, 70V	D.C.
SM15T10A	DIODE, 10V, TRANSIENT SUP	D.C.
LM2931CDR2	IC, REGULATOR, LOW DROPOUT	D.C.
MC79M05BDTRK	IC, REGULATOR, 5V NEG, 500mA	D.C.
MC79L05ABDR2	IC, REGULATOR, 5V NEG, 100mA	D.C.
LM2937IMP-5.0	IC, REGULATOR, 5V DROPOUT	D.C.
LM1117DT-ADJ	IC, REGULATOR	D.C.



Global Telecom Solutions Sector

APPLICANT: MOTOROLA

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SUMMARY OF ACTIVE DEVICES

Section E

MCC-1X – Multi Channel CDMA Card

MCC 1X - Multi Channel CDMA Card

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
108612961	5V to 3.3V Switching Regulator	~1MHz
108612953	5V to 2.5V Switching Regulator	~1MHz
MMBT3904LT1	NPN Trans 40V .2A	DC
SG8002JA-66.0MPCBL3	XTAL OSC	66 MHz
SG8002JC-50.0MPCBL2	XTAL OSC	50 MHz
SM1145CV-25.0MHz	Non-PLL XTAL OSC	25 MHz
SN74LVT125DBR	3.3V ABT Quad Buffers, 3ST Outputs	DC
MC74LCX240DTR2	Low-Voltage CMOS Octal Buffer	25 MHz
MPC8260ZU200AR2	PowerQUICC II™ Integrated Comm. Processor	200 MHz
MC74HC32AD	OR Quad 2 Input	DC
MC74ACT14D	Hex Schmitt Trig	DC
MC74ACT541	Oct 3ST Line DRVR/CVR	DC
MC74ACT574DW	Oct D Flip/Flop	DC
MC10H641FN	PDECL-TTL 1:9 Clock Driver	19.6608 MHz
MC10EL16D	PDECL Receiver	19.6608 MHz
MC10EL58D	PDECL 2:1 Mux	19.6608 MHz
MC100ELT23	PDECL to TTL Translator	19.6608 MHz
MPC946FAR2	Low Voltage 1:10 CMOS Clock Driver	66MHz, 50MHz
LM317D	Positive Voltage Regulator	DC
MC74LCX00DTR2	Low-Voltage CMOS Quad 2-Input NAND Gate	DC
MC74LCX02DTR2	Low-Voltage CMOS Quad 2-Input NOR Gate	DC

MCC 1X - Multi Channel CDMA Card

(CONTINUED)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MC74LCX74DTR2	Low-Voltage CMOS Dual D-Type Flip-Flop	DC
MC74LCX244DTR2	Low Voltage CMOS Octal Buffer	DC
MC74LCX16244DT	Low-Voltage 16-Bit Buffer	33 MHz, 25 MHz, 4 MHz, 16MHz
DS1706TESA	Reset Controller	DC
EPM7256AEFC256-7	256 Logic Cell CPLD	66 MHz
74ABT125D	Quad Buffer, 3ST Outputs	DC
SN74CBTD3384DBR	10-Bit FET Bus Switches, Level Shifting	19.6608 MHz, 39.3216 MHz
CSM5000	Cell Site Modem ASIC	50MHz
MT48LC8M16A2TG-75	SDRAM Memory 2M x 16	66MHz, 50 MHz
EPM7064BTC44-3	64 Logic Cell CPLD	39.3216 MHz
MAX6301CSA	Low-Power uP Supervisory Circuit	DC
XC2S100-5FG256C	100K Gate FPGA	66 MHz, 19.6608 MHz, 39.3216 MHz
XC2S200-5FG256C	200K Gate FPGA	66 MHz, 4 MHz, 8 MHz, 16MHz
E28F128J3A-150	16 Mbyte FLASH Memory	~8 MHz, ~6 MHz
MAX3233ECWP	3.3V Dual RS232 Transceiver	19.2 kHz
AL100A-A4	8 Port 10/100 Ethernet Switch	66 MHz, 25 MHz
CY7B991V-2JC	Programmable Skew Clock Buffer	4 MHz, 8 MHz, 16 MHz
X24C04S8-2.7	Serial 256x8 2-wire EEPROM	DC

MCC 1X - Multi Channel CDMA Card

(CONTINUED)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
X25020S-2.7	Serial 256x8 EEPROM	DC
M4A3-128/64-55VC	128 Macrocell CPLD	50 MHz
74LCXR162245MTDX	16 Bit Bi-directional Transceiver	33 MHz
LXT971ALC	Ethernet Transceiver, Dual Speed	25 MHz
GAL26CV12C-7LJ	PAL	19.6608 MHz



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Section F

CCD – CDMA Clock Distribution Card

CDMA Clock Distribution (CCD) Module: Issue A or B

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
GAL22V10C-7LJ	PAL	U2 50 MHz
2520N-50MHz	XTAL OSC	X1 50 MHz
MMBT3904	NPN Transistor	Q1 DC
74ACT04D	Hex Inverter	U1 DC
MC10EL16D	PDECL Receiver	U5,U8,U9 DC
		U16 19.6608 MHz
MC10EL111FN	PDECL 1:9 Clk Driver	U13,U14,U15 19.6608 MHz
MC10EL23D	PDECL to TTL Translator	U6,U7,U10,U11 DC
		U12 19.6608 MHz
DS1232S	Micro Power Monitor	U4 DC
X25020	Serial 256x8 EEPROM	U3 DC



Global Telecom Solutions Sector

APPLICANT: MOTOROLA

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SUMMARY OF ACTIVE DEVICES

Section G

CSM2 – Clock Synchronization Module w/ GPS

Clock Synchronization Module (CSM2)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MJD243RL	Q13, Q11, Q10, Q9, Q8, Q1	3 MHz
MJD2955T4	Q15	D.C.
MMFT3055V	Q17, Q18	307.2 KHz
MMBT3904	Q19, Q14, Q12, Q7, Q5, Q4, Q2	D.C.
MMBT3906	Q6, Q3	D.C.
MMBT3906	Q16	307.2 KHz
74ACT14D	U1	0.5 Hz
74ACT14D	U75, U66, U65, U37	1 Hz
MC14538B	U10	D.C.
IDT71024S15TY	U82, U81, U12, U11	16 MHz
74ACT00D	U13	19.6608 MHz
74ACT00D	U60	D.C.
AM29F040	U15, U14	16 MHz
AD817AR	U16	19.6608 MHz, 3 MHz
74ACT245DW	U19, U17	1 Hz
AD9850	U18	19.6608 MHz
MC68302FC	U2	16 MHz
XC5206-160	U20	307.2 KHz, 19.6608 MHz, 10 MHz
AD7846JP	U24	1 Hz
MC10ELT21D	U25	10 MHz
MC78M12	U26, U53	D.C.
MC10E1651FN	U27	19.6608 MHz
LM317D	U28	D.C.
MC78M15CDTRK	U29	D.C.
LT1081IS	U3	130 KHz
MC79M15CDT	U30	D.C.
MC100ELT23D	U31	19.6608 MHz
MC100ELT23D	U73, U72	D.C.

Clock Synchronization Module (CSM2)

(continued)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MC100ELT23D	U36, U35	19.6608 MHz
MC100ELT23D	U78, U77	3 MHz
LT1054IS	U32	25 kHz
MC10EL16D	U33	19.6608 MHz
GAL22V10B-7LJ	U34	50 MHz
74ACT74D	U38	9.8304 MHz
X25020	U4	D.C.
78ST305HC	U40	1 MHz
10H20EV8	U41	50 MHz
MC10EL07D	U49, U43	19.6608 MHz
MC10EL51D	U52, U50, U45, U44	D.C.
MC10EL51D	U55	0.5 Hz
MC10EL31D	U56, U51, U46	D.C.
75175D	U74, U59	8000 Hz
75175D	U76, U47	4800 Hz
75175D	U79	9600 Hz
MC10EL04D	U57, U48	D.C.
74ACT05D	U5	D.C.
75172BDW	U67, U54	4800 Hz
75172BDW	U71	0.5 Hz
MC10EL16D	U62, U61, U58	D.C.
MC10EL16D	U63	19.6608 MHz
MC10EL16D	U64	D.C.
DS1232S	U6	D.C.
MC10EL111FN	U68	0.5 Hz
MC10EL111FN	U69	D.C.
MC10EL111FN	U70	19.6608 MHz

Clock Synchronization Module (CSM2)

(continued)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
MC68681FN	U7	4 MHz, 9600 Hz
74ACT32D	U8	16 MHz
MC34025	U83	307.2 MHz
78M05	U84	D.C.
74ACT04D	U9	16 MHz
MA505-16MHz	Y1	16.0 MHz
19.6608 MHz VCXO	Y2	19.6608 MHz
SG615H-50MHz	Y3	50 MHz



Global Telecom Solutions Sector

APPLICANT: MOTOROLA

FCC ID: IHET5DJ1

SUMMARY OF ACTIVE DEVICES

Section H

LPA – Linear Power Amplifier

**Linear Power Amplifier
(CLPA)**

Device Type	Component Description	Operating Frequencies
MA4P274	DIODE PIN	<1GHz
MA-505	QUARTZ XTAL SURFACE MT 16 MHZ	16MHz
LM4040	DIODE 5.0V PRECISION SOT23	DC
MJD31TD	TSTR N-CH 60V 20A	DC
2N7002LT1	TSTR NPN 40V 3A MJD31T4	DC
MMBT3904T	TSTR NPN 40V .2A GEN PURP	DC
MBT3906DW1T1	TSTR DUAL PNP 40V .2A	DC
MMBT3904WT1	TSTR NPN 40V	DC
MMBD701L	DIODE 70V HOT CARRIER MMBD701L	<1GHz
PWIC7084GR1	DIODE DL 5.6V COM ANODE	DC
PHVIC7085R2	DIODE 6.8V E5 MMSZ5235BT1	DC
MMBZ5V6A	12V TRANS SUP 1.5SMC12AT3	<1GHz
MMSZ5235BT1	33V TRANS SUP 1.5SMC33AT3	<1GHz
SUPP6SMB18AT3	ZENER BPLR 15V FOR ESD SOT23	DC
SMC33AT3	DIODE SCHOTTKY 3A 60V LTB 23/6/99	DC
MMBZ15	DIODE DUAL 70V A7X BAV99LT1	DC
MBRD360	DIODE DUAL 75V A2X MMBD2836LT1	DC
BAV99LT1	DIODE DUAL 100V 5C COMM ANO	DC
MMBD2836LT1	DIODE SLCN 34N02 VCTR A/P	<1GHz
MMBD7000LT1	DIODE DUAL PIN	<1GHz
MMBV105G	IC LM337L	DC
FQD24N08TF	IC LOG AMP DET/CONT AD8313	<1GHz
SMP1307	IC OP AMP OP177	<1GHz
LM337L	IC TEMP SNSR LM60BIM3X SOT23	DC
AD8313	IC OP AMP LMC7101 SOT23	<1GHz
OP177	IC 58HC12, 112 QFP, T&R	16MHz
LM60CIM3X	IC QUAD 2INP NAND 74HC00AD	16MHz
LMC7101	IC QUAD 2INP NOR 74HC02AD	16MHz
68HC12	IC DUAL D FF W/SET RST 74HC74	16MHz
74HC00AD	IC QUAD ANALOG MUX/DEMUX	16MHz
74HC02AD	IC MC14066BDR2	16MHz
74HC74	IC HIGH PERF CURRENT MODE CNTR	16MHz
MC74HC4066	IC ADJ. LOW DROPOUT POS,100MA	DC
UC2842A	REG 15V POS 100MA MC78L15ABDR2	DC
LM2931	REG 5V POS 500MA MC78M05BDTRK	DC
MC78M05BDTRK	IC QD OP AMP GEN PURP MC3303D	<1GHz
MC7808	IC LINEAR LM2940S 8V	DC
MC3303D	MONOSTABLE MULTIVIBRATOR CD14538BPWR	<1GHz
CD14538BPWR	IC DAC 12CH AD8802 ARU	16MHz
AD8802	IC RS485 XCVR MAX1482ESD	16MHz
MAX1482ESD	IC AD5317 QUAD 10BIT SPI	16MHz
AD5317	IC RS-232 TRANCEIVER	16MHz
MC145407	IC RESET DC 5V	DC
DS1706	TSTR 1GHZ, 30 W RFIC	<1GHz
DS1706	TSTR 1GHZ, 15 W RFIC	<1GHz



Global Telecom Solutions Sector

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SUMMARY OF ACTIVE DEVICES

Section I

Switch Card

**Hi Power Switchboard 800 MHz
(HP SW)**

Device Type	Component Description	Operating Frequencies
MMBZ5231BL	5.1V Zener Voltage Regulator Diode	D.C.
MMBT3904	NPN Transistor	D.C.
MC33161	Universal Voltage Monitor	D.C.
MC33063	Switching Regulator	40 kHz
MMDF2P02HD	P-Channel MOSFET	40 kHz
MBRS340T3	Schottky Power Rectifier (1A)	40 kHz
MIC2920A-5.0BS	Low-Dropout Voltage Regulator (0.4A)	D.C.
MIC2940A	Low-Dropout Voltage Regulator (1.25A)	D.C.
MIC5205-3.3BM5	Low-Dropout Voltage Regulator (150mA)	D.C.
	Low-Dropout Variable Voltage Regulator (200mA)	D.C.
MIC2941ABU	Schottky Power Rectifier (0.5A)	D.C.
MBR0530T1	Schottky Power Rectifier (0.5A)	D.C.
74LCX244	Low-Voltage CMOS Octal Buffer	D.C.
MMBD7000	Dual Switching Diode	D.C.
PLSI2032E	Programmable Logic Device	D.C.
AT2502N - 1051	Serial E ² PROM	100 kHz
74ACT00	Hex NAND Gate	D.C.
BRPG1204	Red-Green LED	D.C.
LM2901	Quad Comparator	D.C.
SL565-0440	GaAs SP4T Terminated Switch	800 MHz
HMC292QS24	GaAs SP8T Terminated Switch	800 MHz
RFMD5187	GaAs FET MMIC RF AMPLIFIER	800 MHz
MBT3904	DUAL NPN TRANSISTOR	D.C.
MBT3906	DUAL PNP TRANSISTOR	D.C.



Global Telecom Solutions Sector

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SUMMARY OF ACTIVE DEVICES

Section J

HSO – High Stability Oscillator

High Stability Oscillator (HSO)

<u>Device Type</u>	<u>Component Description</u>	<u>Operating Frequencies</u>
SN74AC240DW	LINE DRIVER	1 HZ
X2502OS	EEPROM	9.6 kHz
DS3695AM	RS485 DRIVER	1 HZ
FE5680A	Rb MODULE	500 HZ 8.388608 MHz 38 MHz 50.255 MHz 100.51 MHz 6.8 GHZ