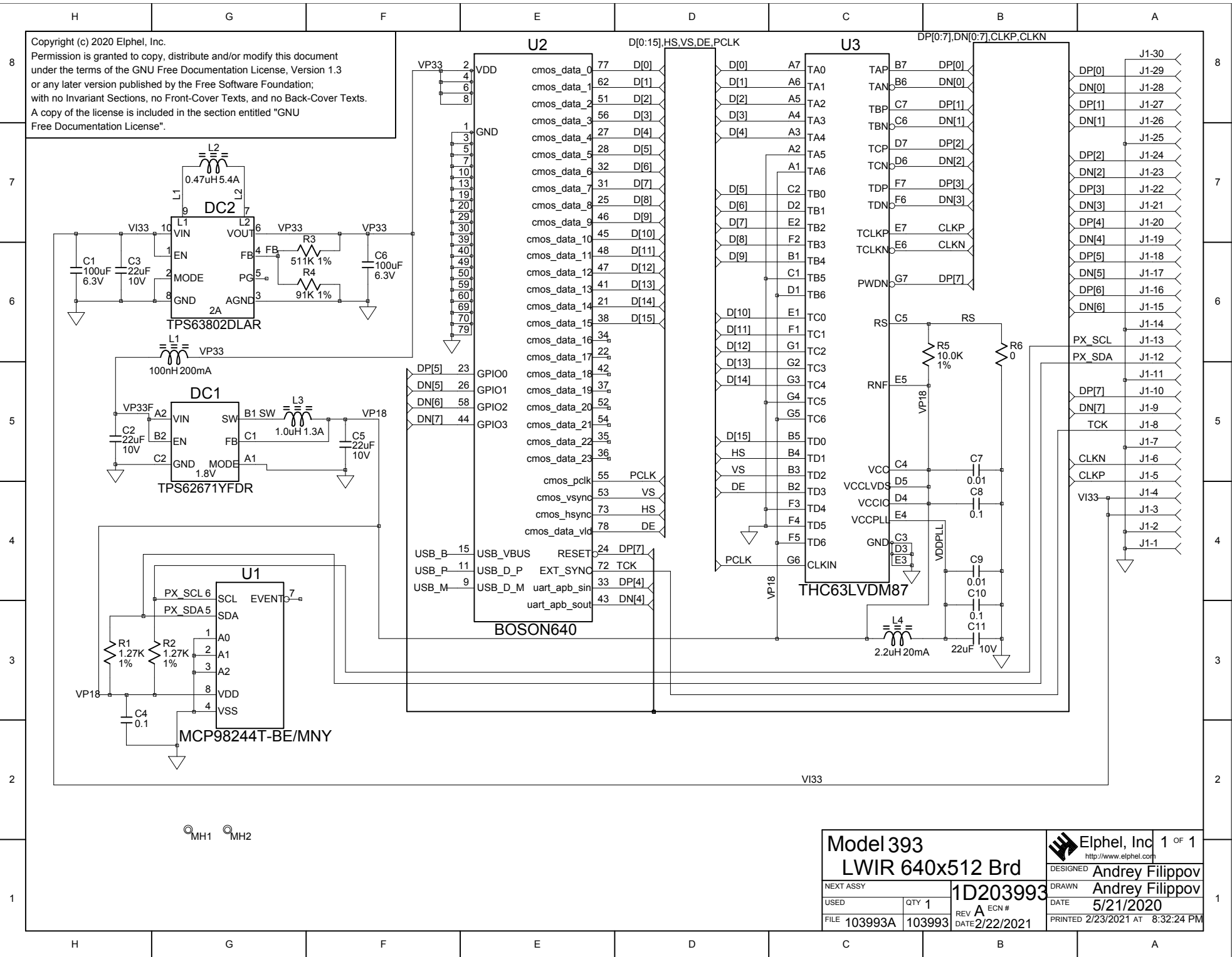


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MH1 MH2

<b>Model 393</b> <b>LWIR 640x512 Brd</b>		Elphel, Inc 1 OF 1 <a href="http://www.elphel.com">http://www.elphel.com</a>	
NEXT ASSY		DESIGNED <b>Andrey Filippov</b>	
USED	QTY 1	DRAWN <b>Andrey Filippov</b>	DATE
FILE 103993A	103993	REV <b>A</b> ECN #	5/21/2020
DATE 2/22/2021		PRINTED 2/23/2021 AT 8:32:24 PM	

SUB-ASSEMBLY																	
USAGE	#		NO.					RELEASE DATE	02/23/21	P/L	REV.	REV.	Units to	Total	Cost per		
									DATE	LTR	DATE	Build	Cost	Unit			
393	1	TITLE				Model 393 LWIR 640x512 Brd PCB Assembly 103993				JOB#	N/A	5/21/2020	A	2/22/2021	1	Err:511	Err:511
			# TO	MFGR	1				WORK ORDER #	N/A							
			NEXT	ASSY	4A-?????				NON STANDARD NOTATIONS								
DESIGNATOR	ITEM	QTY	EXT	STK	ROHS					PART	MANUFAC	VENDOR	PURCH	UNIT		NEW	
NUMBER	#	REQ	QTY	CHK		DESCRIPTION				#	TURER	VENDOR	PART #	QTY	PRICE	TOTAL	STOCK
-----	----	---	----	---	---					-----	-----	-----	-----	-----	---	---	---
						<b>Related Documents</b>											
	0.5	1	1			Schematic 103993A (103993), Model 393				1D203993 Rev.A	Designed by						
	20	1	1			Fabrication (103993), Model 393				4F203993 Rev.A							
	21	1	1			Artwork (103993), Model 393				4G203993 Rev.A							
-----	----	---	----	---	---	<b>Integrated Circuits</b>				-----	-----	-----	-----	-----	---	---	---
U3	40	1	1			24-bit Color LVDS Transmitter, 1.8V, VFBGA-49				THC63LVDM87	CEL	Arrow	THC63LVDM87	Err:511	###	Err:511	###
U1	41	1	1		Y	I2C 2Kb EEPROM with Temperature Sensor, 1.8V, TDFN-8				MCP98244T-BE/M	Microchip	Digi-Key	MCP98244T-BE/MNYCT-ND	Err:511	###	Err:511	###
U2	42	1	1			LWIR 640x512 module with shutter, Boson640, FLIR-BOSON80PIN				BOSON640	FLIR	FLIR	Boson640	Err:511	###	Err:511	###
-----	----	---	----	---	---	<b>Power Supply Modules</b>				-----	-----	-----	-----	-----	---	---	---
DC1	43	1	1		Y	High-Efficiency 6MNz Step Down DC-DC Converter, 1.8V, 1.8V, 500mA, DSBGA-6, marked as NZ				TPS62671YFDR	Texas Instru	Digi-Key	296-52810-1-ND	Err:511	###	Err:511	###
DC2	44	1	1		Y	Buck-boost DC/DC Converter, Synchronous, 2.25MHz, 3mm x 2mm, 2A, VSOH-HR-10				TPS63802DLAR	Texas Instru	Digi-Key	296-TPS63802DLARCT-ND	Err:511	###	Err:511	###
-----	----	---	----	---	---	<b>Resistors</b>				-----	-----	-----	-----	-----	---	---	---
R1-R2	45	2	2		Y	Resistor, 1.27KΩ, ±1%, SMD 0201, marked as 1271				ERJ-1GEF1271C	Panasonic	Digi-Key	P1.27KABCT-ND	Err:511	###	Err:511	###
R5	46	1	1		Y	Resistor, 10KΩ, ±1%, SMD 0201, marked as 1002				ERJ-1GEF1002C	Panasonic	Digi-Key	P10.0KABCT-ND	Err:511	###	Err:511	###
R4	47	1	1		Y	Resistor, 91KΩ, ±1%, SMD 0201, marked as 9102				ERJ-1GNF9102C	Panasonic	Digi-Key	P123201CT-ND	Err:511	###	Err:511	###
R3	48	1	1		Y	Resistor, 511KΩ, ±1%, SMD 0201, marked as 5113				ERJ-1GNF5113C	Panasonic	Digi-Key	P123057CT-ND	Err:511	###	Err:511	###

DESIGNATOR	ITEM	QTY	EXT	STK	ROHS		PART	MANUFAC		VENDOR	PURCH	UNIT		NEW
NUMBER	#	REQ	QTY	CHK		DESCRIPTION	#	TURER	VENDOR	PART #	QTY	PRICE	TOTAL	STOCK
R6	49	1	1		Y	Jumper, <b>0Ω</b> , SMD 0201, marked as <b>0</b>	<a href="#">ERJ-1GE0R00C</a>	Panasonic	Digi-Key	P0.0AGCT-ND	Err:511	###	Err:511	###
						<b>Capacitors</b>								
C7, C9	50	2	2		Y	Capacitor, Ceramic Chip, <b>0.01μF</b> , <b>6.3V</b> , C-0201	<a href="#">ECJ-ZEB0J103K</a>	Panasonic	Digi-Key	PCC2136CT-ND	Err:511	###	Err:511	###
C4, C8, C10	51	3	3		Y	Capacitor, Ceramic Chip, <b>0.1μF</b> , <b>6.3V</b> , C-0201D	<a href="#">ECJ-ZEB0J104M</a>	Panasonic	Digi-Key	PCC2336CT-ND	Err:511	###	Err:511	###
C1, C6	52	2	2		Y	Capacitor, Ceramic Chip, X5R,20%, 1.45mm, <b>100μF</b> , <b>6.3V</b> , C-0805	<a href="#">GRM21BR60J107M</a>	Murata	Digi-Key	490-13981-1-ND	Err:511	###	Err:511	###
C2-C3, C5, C11	53	4	4		Y	Capacitor, Ceramic Chip, X5R,20%, 0.8mm, <b>22μF</b> , <b>10V</b> , C-0603	<a href="#">GRM187R61A226M</a>	Murata	Digi-Key	490-13243-1-ND	Err:511	###	Err:511	###
						<b>Inductors and LC filters</b>								
L1	54	1	1		Y	SMD Inductor, DCR=1.5 Ohm, <b>100nHn</b> , <b>200mA</b> , SMD 0402	<a href="#">HK1005R10J-T</a>	Taiyo Yuden	Digi-Key	587-1531-1-ND	Err:511	###	Err:511	###
L2	55	1	1		Y	SMD Shielded Inductor, 7.6mOhm, 4mm x 4mm x 1.6mm, <b>0.47μHn</b> , <b>5.4A</b> , XFL4015	<a href="#">XFL4015-471MEB</a>	Coilcraft	Mouser	994-XFL4015-471MEB	Err:511	###	Err:511	###
L3	56	1	1		Y	SMD Inductor, 82.5mOhm, <b>1μHn</b> , <b>1.3A</b> , L-0805	<a href="#">LQM21PN1R0NGF</a>	Murata	Digi-Key	490-7780-1-ND	Err:511	###	Err:511	###
L4	57	1	1		Y	SMD Inductor, DCR=1.15 Ohm, <b>2.2μHn</b> , <b>20mA</b> , SMD 0402	<a href="#">LK10052R2K-T</a>	Taiyo Yuden	Digi-Key	587-5908-1-ND	Err:511	###	Err:511	###
						<b>Connectors</b>								
J1	58	1	1		Y	0.5 mm-Pitch Vertical Slide-Lock FPC Connector, 30 pos., FH1230S05SV	<a href="#">FH12-30S-0.5SV-5</a>	Hirose	Digi-Key	HFL130CT-ND	Err:511	###	Err:511	###
						<b>Sockets and Matching Parts</b>								
XU2	59	1	1			Dual-row 0.4mm pitch receptacle	<a href="#">DF40HC-(4.0)-80D</a>	Hirose	<a href="http://www.hirose.com">http://www.hirose.com</a>		Err:511	###	Err:511	###