

**Mietro 10MHz Master Clock v1.94 - Parts List** (updated 21-01-2019)

Part	Value	Description	Farnell nr.	Manufact.	Manufact. part Nr	TOLERANCE	VALUE	VOLTAGERATING
C1	10uF T	POLARIZED CAPACITOR, Tantaal 10uF 25V RAD	2395813		TAP106K025CCS		10uF	25V
C2	18p	Capacitor, Ceramic					18pF	
C3	47n	Capacitor SMD1210, Ceramic X7R, 50V	499-377	AVX	12105C473KAT4A	10%	0.047UF	50V
C4	10uF T	POLARIZED CAPACITOR, Tantaal 10uF 25V RAD	2395813		TAP106K025CCS		10uF	25V
C5	10uF T	POLARIZED CAPACITOR, Tantaal 10uF 25V RAD	2395813		TAP106K025CCS		10uF	25V
C6	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C7	470uF/16V	POLARIZED CAPACITOR, 470uF, 16V, 105 gr.C					470uF	16V
C8	100uF/50V	Elco, Low ESR & high Freq, 105 gr.C	114-4713	Rubycon	ZL		100uF	50V
C9	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C10	10nF/50V	CAPACITOR, Film, PP	1413951				10nF	50V
C11	10uF T	POLARIZED CAPACITOR, Tantaal 10uF 25V RAD	2395813		TAP106K025CCS		10nF	50V
C12	10nF NPO	Capacitor, Ceramic MLCC COG/NPO, 50V	2112749				10nF	50V
C13	10nF NPO	Capacitor, Ceramic MLCC COG/NPO, 50V	2112749				10nF	50V
C14	10nF NPO	Capacitor, Ceramic MLCC COG/NPO, 50V	2112749				10nF	50V
C15	10nF NPO	Capacitor, Ceramic MLCC COG/NPO, 50V	2112749				10nF	50V
C16	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C17	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C18	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C19	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C20	2u2 T	POLARIZED CAPACITOR, Tantaal 2,2uF 25V RAD	9708413		MCCB1E225M2ACB		2,2uF	25V
C21	2u2 T	POLARIZED CAPACITOR, Tantaal 2,2uF 25V RAD	9708413		MCCB1E225M2ACB		2,2uF	25V
C22	2u2 T	POLARIZED CAPACITOR, Tantaal 2,2uF 25V RAD	9708413		MCCB1E225M2ACB		2,2uF	25V
C23	2u2 T	POLARIZED CAPACITOR, Tantaal 2,2uF 25V RAD	9708413		MCCB1E225M2ACB		2,2uF	25V
C24	10nF/50V	CAPACITOR, Film, PP	1413951				10nF	50V
C25	10nF/50V	CAPACITOR, Film, PP	1413951				10nF	50V
C26	10nF/50V	CAPACITOR, Film, PP	1413951				10nF	50V
C27	10nF/50V	CAPACITOR, Film, PP	1413951				10nF	50V
C28	1nF	CAPACITOR, European symbol					1nF	
C29	1000uF/35V	POLARIZED CAPACITOR, 1000uF, 35V, 105gr.C, steek 5mm					1000uF	35V
C30	100uF/50V	Elco, Low ESR & high Freq	114-4713	Rubycon	ZL		100uF	50V
C31	100nF	CAPACITOR, MKM / MKT						
C32	10nF	Capacitor SMD 0805, Ceramic X7R, 50V	499-225	AVX	08055C103KAT2A	10%	10nF	50V
C33	10uF T	POLARIZED CAPACITOR, Tantaal 10uF 25V RAD	2395813		TAP106K025CCS		10uF	25V

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C34	2u2 T	POLARIZED CAPACITOR, Tantaal 2,2uF 25V RAD	9708413		MCCB1E225M2ACB		2,2uF	25V
D1	1N4148	DIODE						
D2	1N4148	DIODE						
D3	1N5819-B	1.0A SCHOTTKY BARRIER RECTIFIER 40V	1017589					
D4	1N5819-B	1.0A SCHOTTKY BARRIER RECTIFIER 40V	1017589					
D5	1N5819-B	1.0A SCHOTTKY BARRIER RECTIFIER 40V	1017589					
D6	1N5819-B	1.0A SCHOTTKY BARRIER RECTIFIER 40V	1017589					
H1	MOUNT-HOLE	MOUNTING HOLE with drill center marker						
H2	MOUNT-HOLE	MOUNTING HOLE with drill center marker						
H3	MOUNT-HOLE	MOUNTING HOLE with drill center marker						
IC1	LM393	LM393 COMPARATOR	1468961					
IC2	LM7171N	OpAmp, High Speed, High Output Current PDIP	1564665	Texas Ints.				
IC3	LM7171N	OpAmp, High Speed, High Output Current PDIP	1564665	Texas Ints.				
IC4	LM7171N	OpAmp, High Speed, High Output Current PDIP	1564665	Texas Ints.				
IC5	LM7171N	OpAmp, High Speed, High Output Current PDIP	1564665	Texas Ints.				
IC6	LM317	VOLTAGE REGULATOR, TO220						
JP1		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP2		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP3		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP4		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP5		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP6		Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP7	out1	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP8	gnd1	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP9	out2	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP10	gnd2	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP11	out3	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP12	gnd3	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP13	out4	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP14	gnd4	Fisher male print header 2,54mm 3Amp.	972-9062	Fisher	SL11 124 36G			
JP15	AC in	PIN HEADER - Soldeer pen 1,3mm						
JP16	AC in	PIN HEADER - Soldeer pen 1,3mm						
JP17	CHASSIS	PIN HEADER - Soldeer pen 1,3mm						
L1	7427931	SMD EMI Supp. Ferrite Beads WE-PBF 0,9mR 5A	1890598	Wuerth Elektron	7427931			
L2	74279214	SMD EMI Supp. Ferrite Beads WE-PBF 0,45R 0,2A	1635749	Wuerth Elektron	74279214			

Part	Value	Description	Farnell nr.	Manufact.	Manufact. part Nr	TOLERANCE	VALUE	VOLTAGERATING
L3	74279214	SMD EMI Supp. Ferrite Beads WE-PBF 0,45R 0,2A	1635749	Wuerth Elektron	74279214			
L4	74279214	SMD EMI Supp. Ferrite Beads WE-PBF 0,45R 0,2A	1635749	Wuerth Elektron	74279214			
L5	74279214	SMD EMI Supp. Ferrite Beads WE-PBF 0,45R 0,2A	1635749	Wuerth Elektron	74279214			
L6	ferrite 6x	INDUCTOR, ferrite core, vertical 6x Fair-rite	1191415	Fair-rite	2944666631			
L7	ferrite 6x	INDUCTOR, ferrite core, vertical 6x Fair-rite	1191415	Fair-rite	2944666631			
L8	7427931	SMD EMI Supp. Ferrite Beads WE-PBF 0,9mR 5A	1890598	Wuerth Elektron	7427931			
L9	7427931	SMD EMI Supp. Ferrite Beads WE-PBF 0,9mR 5A	1890598	Wuerth Elektron	7427931			
R1	4k7	RESISTOR, 1% metaalfim 0,25W						
R2	4k7	RESISTOR, 1% metaalfim 0,25W						
R3	110R	RESISTOR, 1% metaalfim 0,25W						
R4	4k7	RESISTOR, 1% metaalfim 0,25W						
R5	4k7	RESISTOR, 1% metaalfim 0,25W						
R6	5k	Trimm res, 3296X-1-502LF instelpot, 25 Turn 5K	9353461	Bourne	3296X-1-502LF			
R7	2M7	RESISTOR, 1% metaalfim 0,25W						
R8	5k62	RESISTOR, 0.25W 0.1% 5K62 ->TEMP.CO 15ppm<-	9502483		RC55Y 5K62 0.1%			
R9	17k4	RESISTOR, 0.25W 0.1% 17K4 ->TEMP.CO 15ppm<-	9500588		RC55Y 17K4 0.1%			
R10	1k	RESISTOR, 1% metaalfim 0,25W						
R11	100R	RESISTOR, 1% metaalfim 0,25W						
R12	0,47R / 3W	RESISTOR, W31-R68 JI RESISTOR, 3W 5% 0R47	949-7285	Wellwyn	W31-R47 JI			
R13	249k	RESISTOR, 1% metaalfim 0,25W						
R14	3k3	RESISTOR, 1% metaalfim 0,25W						
R15	6k8	RESISTOR, 1% metaalfim 0,25W						
R16	1M	RESISTOR, 1% metaalfim 0,25W						
R17	1k8	RESISTOR, 1% metaalfim 0,25W						
R18	1k	RESISTOR, 1% metaalfim 0,25W						
R19	1k	RESISTOR, 1% metaalfim 0,25W						
R20	470R	RESISTOR, 1% metaalfim 0,25W						
R21	475R	RESISTOR, 1% metaalfim 0,25W						
R22	1k5	RESISTOR, 1% metaalfim 0,25W						
R23	174R	RESISTOR, 1% metaalfim 0,25W						
R24	274R	RESISTOR, 1% metaalfim 0,25W						
R25	174R	RESISTOR, 1% metaalfim 0,25W						
R26	274R	RESISTOR, 1% metaalfim 0,25W						
R27	174R	RESISTOR, 1% metaalfim 0,25W						
R28	274R	RESISTOR, 1% metaalfim 0,25W						

Part	Value	Description	Farnell nr.	Manufact.	Manufact. part Nr	TOLERANCE	VALUE	VOLTAGERATING	
R29	174R	RESISTOR, 1% metaalfim 0,25W							
R30	274R	RESISTOR, 1% metaalfim 0,25W							
R31	475R	RESISTOR, 1% metaalfim 0,25W							
R32	475R	RESISTOR, 1% metaalfim 0,25W							
R33	475R	RESISTOR, 1% metaalfim 0,25W							
R34	475R	RESISTOR, 1% metaalfim 0,25W							
R35	47R5	RESISTOR, MRS25 1% 47R5 0,25W	9468528		MRS25000C4759FCT00				
R36	47R5	RESISTOR, MRS25 1% 47R5 0,25W	9468528		MRS25000C4759FCT00				
R37	47R5	RESISTOR, MRS25 1% 47R5 0,25W	9468528		MRS25000C4759FCT00				
R38	47R5	RESISTOR, MRS25 1% 47R5 0,25W	9468528		MRS25000C4759FCT00				
R39	1k	RESISTOR, 1% metaalfim 0,25W							
R40	0,68R / 3W	RESISTOR, W31-R68 JI RESISTOR, 3W 5% 0R68	9497315	Wellwyn	W31-R68 JI				
R41	0,68R / 3W	RESISTOR, W31-R68 JI RESISTOR, 3W 5% 0R68	9497315	Wellwyn	W31-R68 JI				
R42	4k12	RESISTOR, 1% metaalfim 0,25W							
R43	475R	RESISTOR, 1% metaalfim 0,25W							
R44	27R	RESISTOR, 1% metaalfim 0,25W							
T1	1:1	1:1 trafo 10 MHz, 50 Ohm, 4½ wdgn op Amidon FT37-77**		Amidon	FT37-77			(Reichelt nr.5977000201)	
T2	1:1	1:1 trafo 10 MHz, 50 Ohm, 4½ wdgn op Amidon FT37-77**		Amidon	FT37-77			(Reichelt nr.5977000201)	
T3	1:1	1:1 trafo 10 MHz, 50 Ohm, 4½ wdgn op Amidon FT37-77**		Amidon	FT37-77			(Reichelt nr.5977000201)	
T4	1:1	1:1 trafo 10 MHz, 50 Ohm, 4½ wdgn op Amidon FT37-77**		Amidon	FT37-77			(Reichelt nr.5977000201)	
TP1	TESTPIN	Test pin, PCB, 1,0mm	1702010	multicomp					
TP2	TESTPIN	Test pin, PCB, 1,0mm	1702010	multicomp					
TP3	TESTPIN	Test pin, PCB, 1,0mm	1702010	multicomp					
XO1	OCXO 8663	Oven controlled Xtal Oscillator Oscilloquartz 8663-XS							
		BNC, Chassis, Amphenol, Isolated 50R	1111288	Amphenol	B6651B1-NNYL3G-50				
		BNC, Chassis, Amphenol, Isolated 50R	1111288	Amphenol	B6651B1-NNYL3G-50				
		BNC, Chassis, Amphenol, Isolated 50R	1111288	Amphenol	B6651B1-NNYL3G-50				
		BNC, Chassis, Amphenol, Isolated 50R	1111288	Amphenol	B6651B1-NNYL3G-50				
TR1	2x15V /1A	Transformer ILP 11013, 2x15V / 1A, 30VA							
		JR-101-1F CONN, INLET, IEC, FUSED, 6.3A, PANEL	9521615	multicomp	JR-101-1F				
F1	125mA T	Fuse, 125mA T, Traag, Slow Blow, 20x5mm							
CASE		HAMMOND 1455Q2201BK CASE, ALUM, 52X120X220mm	1511224	Hammond	1455Q2201BK			(Reichelt nr.1455Q2201BK)	
		bijbehorende Fisher female headers, 3Amp	972-8910	Fisher					
5x		IC Socket, 8 pin DIP, Beryllium Copper, 1pF	1077303	TE	808-AG11D-LF				
		** voor 10MHz trafo info zie CO post <a href="https://www.circuitsonline.net/forum/view/message/1730773#1730773">https://www.circuitsonline.net/forum/view/message/1730773#1730773</a>							