



PTCRB Project 79233

MFAST-A-010-2 Rev B Product Certification

Exhibit C2 – Schematic Diagram of DCTU product

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Product Designation:

Manufacturer: Pratt & Whitney Engine Services, Norwood
249 Vanderbilt Avenue
Norwood, MA 02062 USA

Marketing Name: DCTU (Data Collection & Transmission Unit)

HVIN- Part #: MFAST-A-010-2

FCC ID: 2AJ6A-DCTU1	IC_ID: 22451-DCTU1
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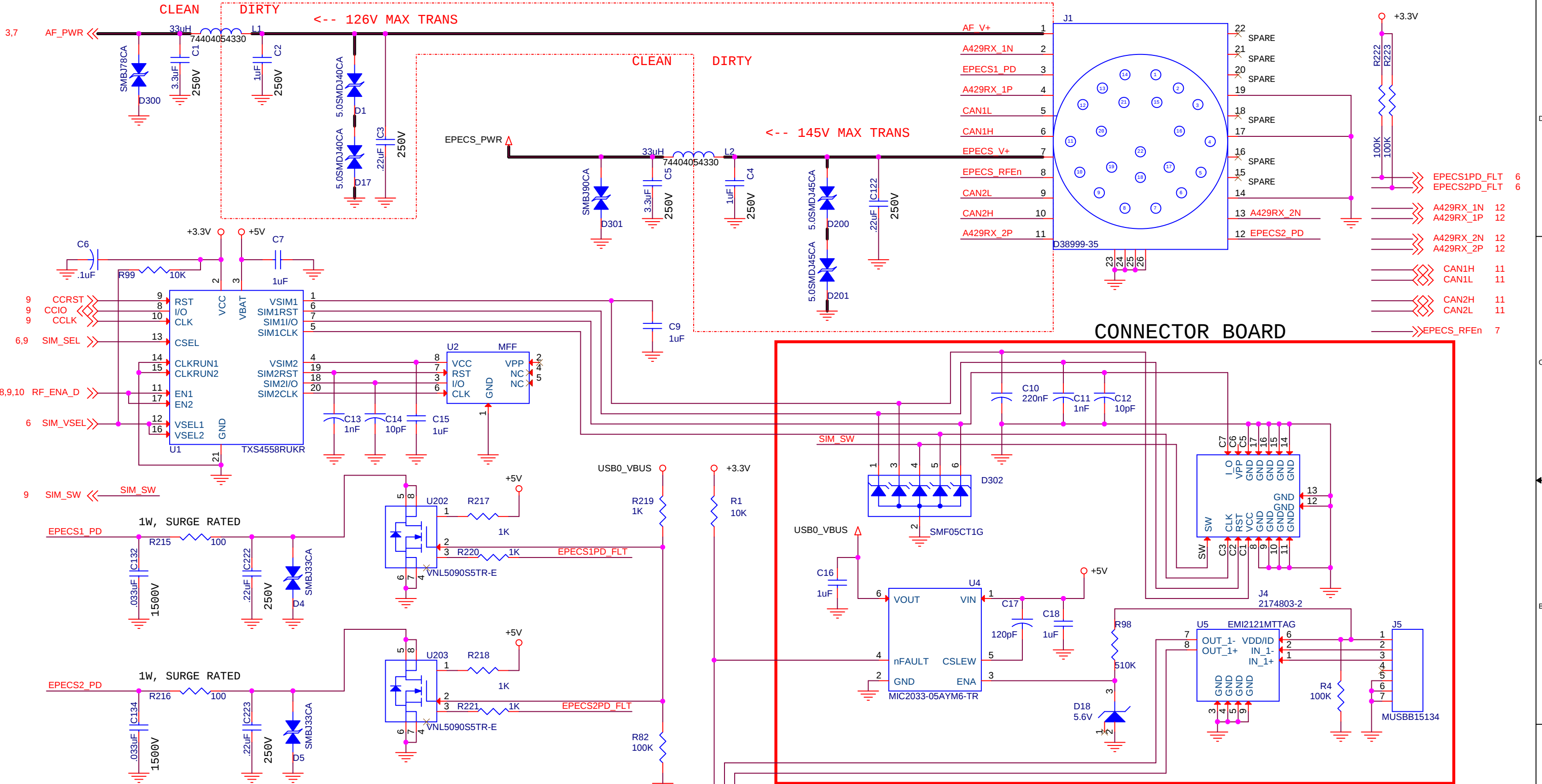
Schematic Diagram of MFAST-A-010-2 / DCTU

Product Overview:

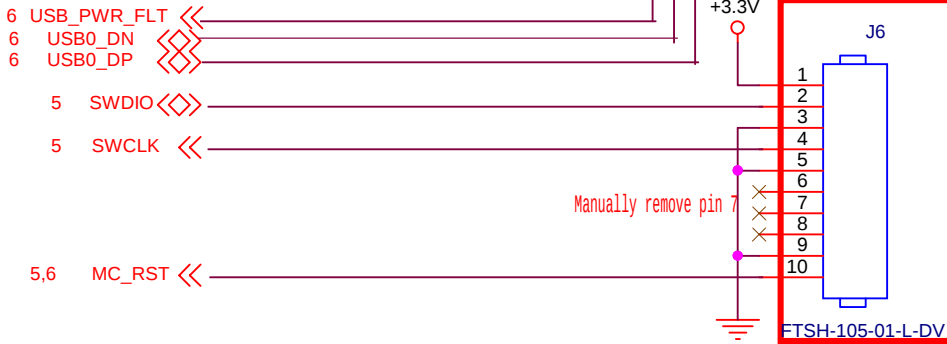
The product being submitted for PTCRB testing and registration is identified by Pratt & Whitney Engine Services, Inc., as having a set of functionality to collect and wirelessly transmits following end of flight, full engine performance and operational data for predictive analysis and proactive maintenance.

The DCTU product uses the global cellular network and customer provided wireless LAN access points for data communication between the DCTU and the P&WC ground station servers across the open internet with a VPN secured data connection. These terrestrial communication links are only used when the aircraft is on the ground with the engines shut-down. DCTU does not support any voice communications modes of operation and presently does not use SMS.

The following includes the working schematic diagram of the DCTU product.

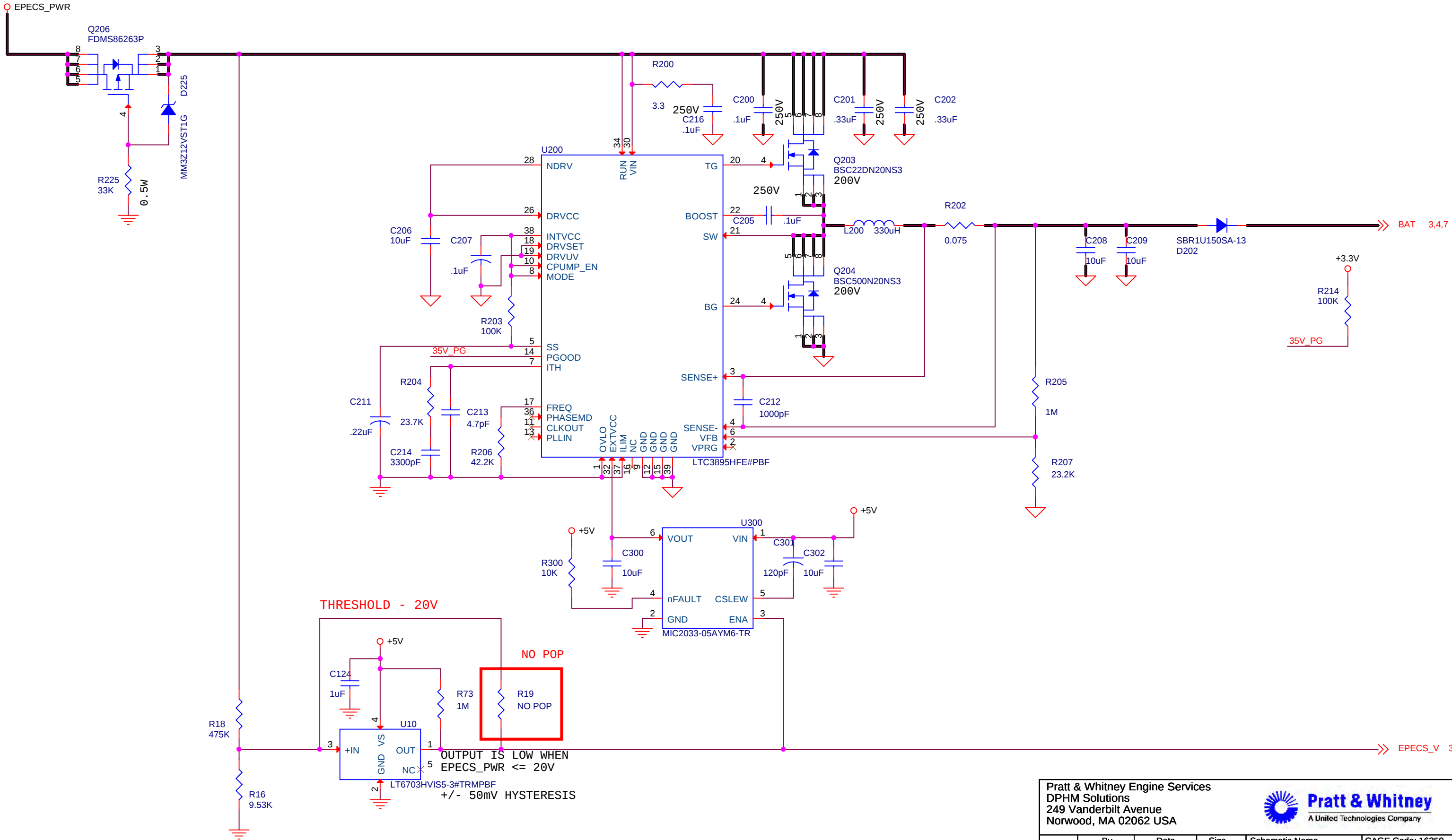


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REVISIONS				Pratt & Whitney Engine Services DPHM Solutions 249 Vanderbilt Avenue Norwood, MA 02062 USA				 Pratt & Whitney A United Technologies Company		
Ltr.	Description	Date	Apr'd		By	Date	Size	Schematic Name	CAGE Code: 16359	
A	INITIAL RELEASE	5/24/18	JMM		DRAWN K. HARVEY	7/15/16	B	MICROFAST		
A1	ECO 1365	9/17/18	JMM		CHECK J. MILLER	7/15/16		CONNECTORS		
					ENG K. HARVEY	7/15/16	Scale	Project MFAST		
					QA M. CUNNINGHAM	7/15/16	NTS	Page Mod Date		
					MTL S. SACKOS	7/15/16				
Sheet 1 of 13		ECCN: 7E994		File Name MFAST-S-015-2.opj				Drawing No MFAST-S-015-2		Rev A1





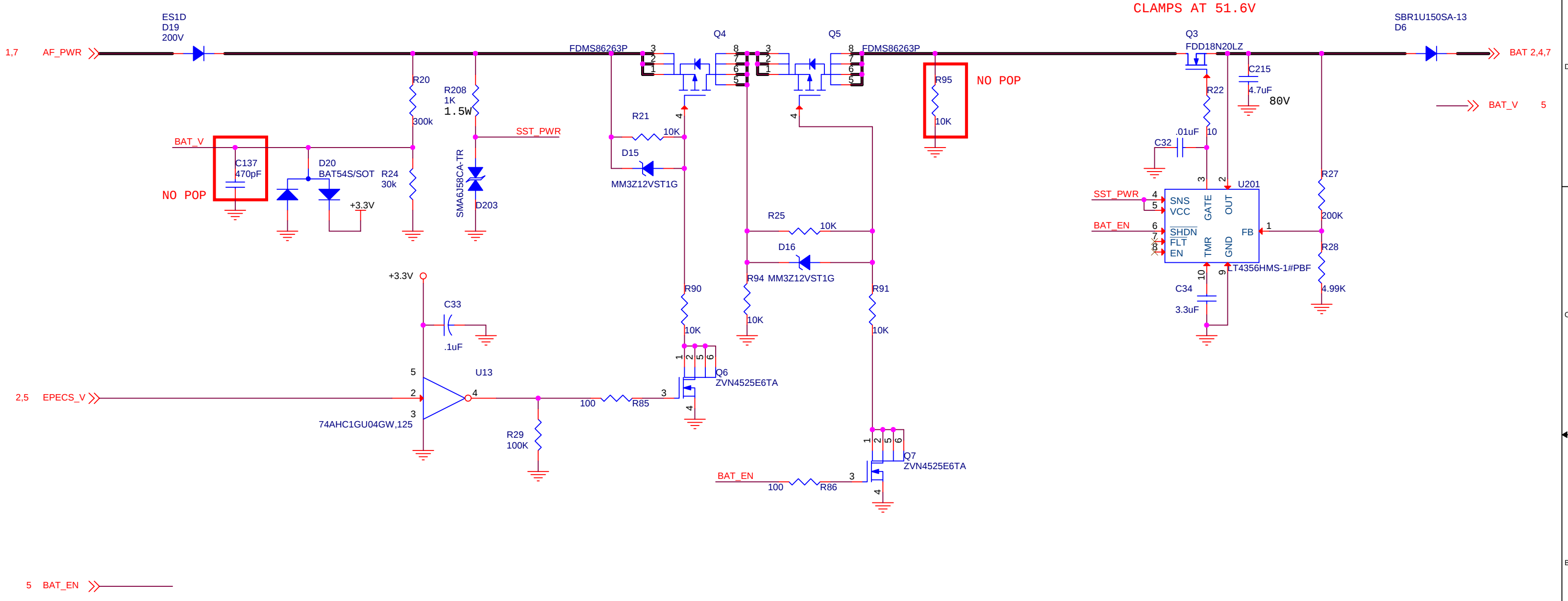
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DPHM Solutions
249 Vanderbilt Avenue
Norwood, MA 02062 USA



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A United Technologies Company

	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			EPCS POWER	
ENG	See Sheet 1		Scale	Project MFAST	
QA	See Sheet 1		NTS	Page Mod Date	
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Sheet Number 2 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	
				Rev A1	

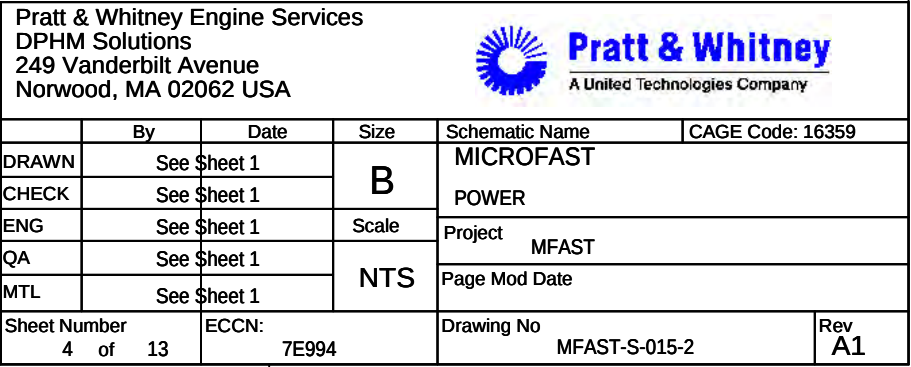


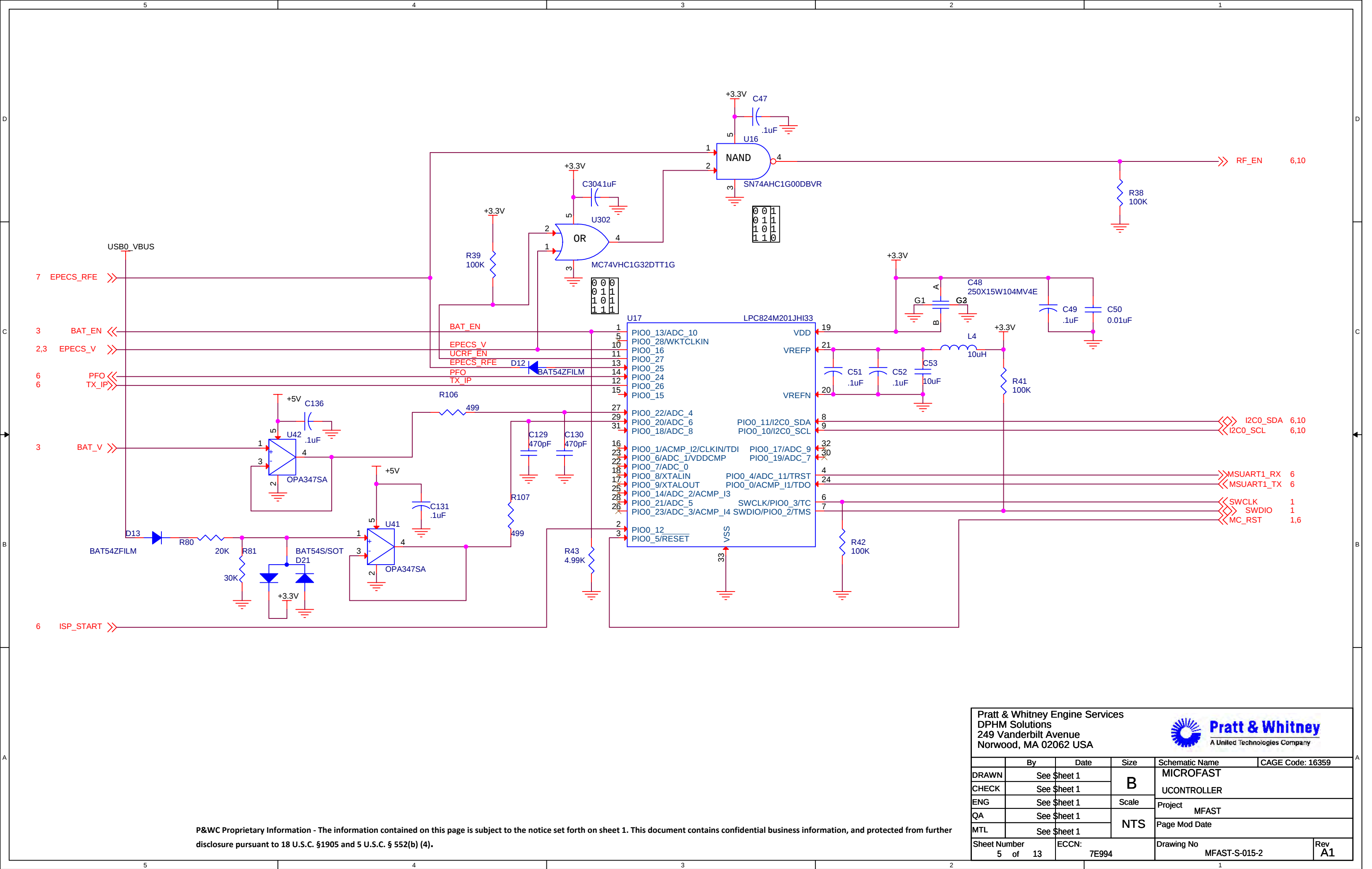
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	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			AF BAT	
ENG	See Sheet 1		Scale	Project MFAST	
QA	See Sheet 1		NTS	Page Mod Date	
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Sheet Number 3 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	
				Rev A1	





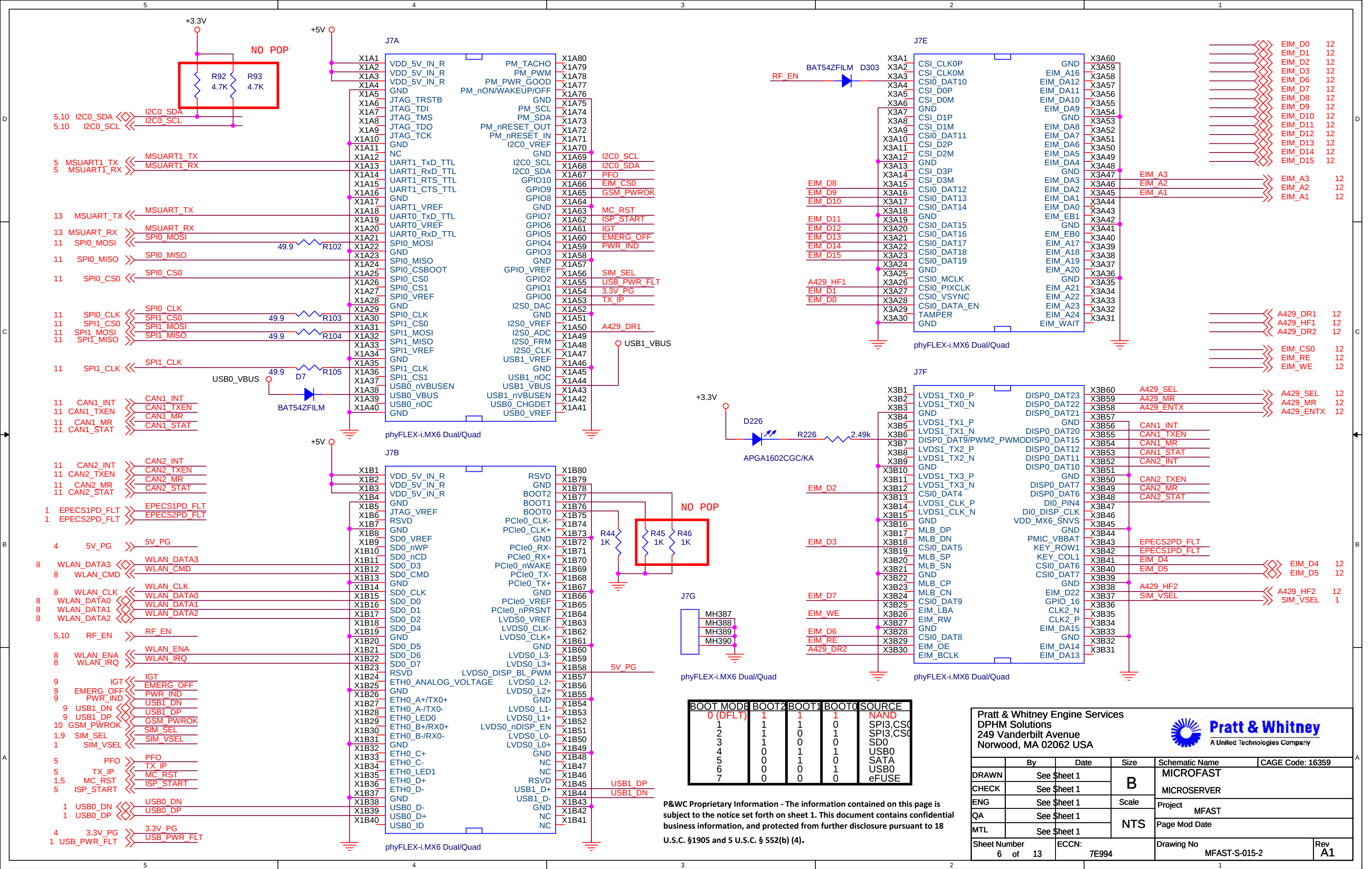
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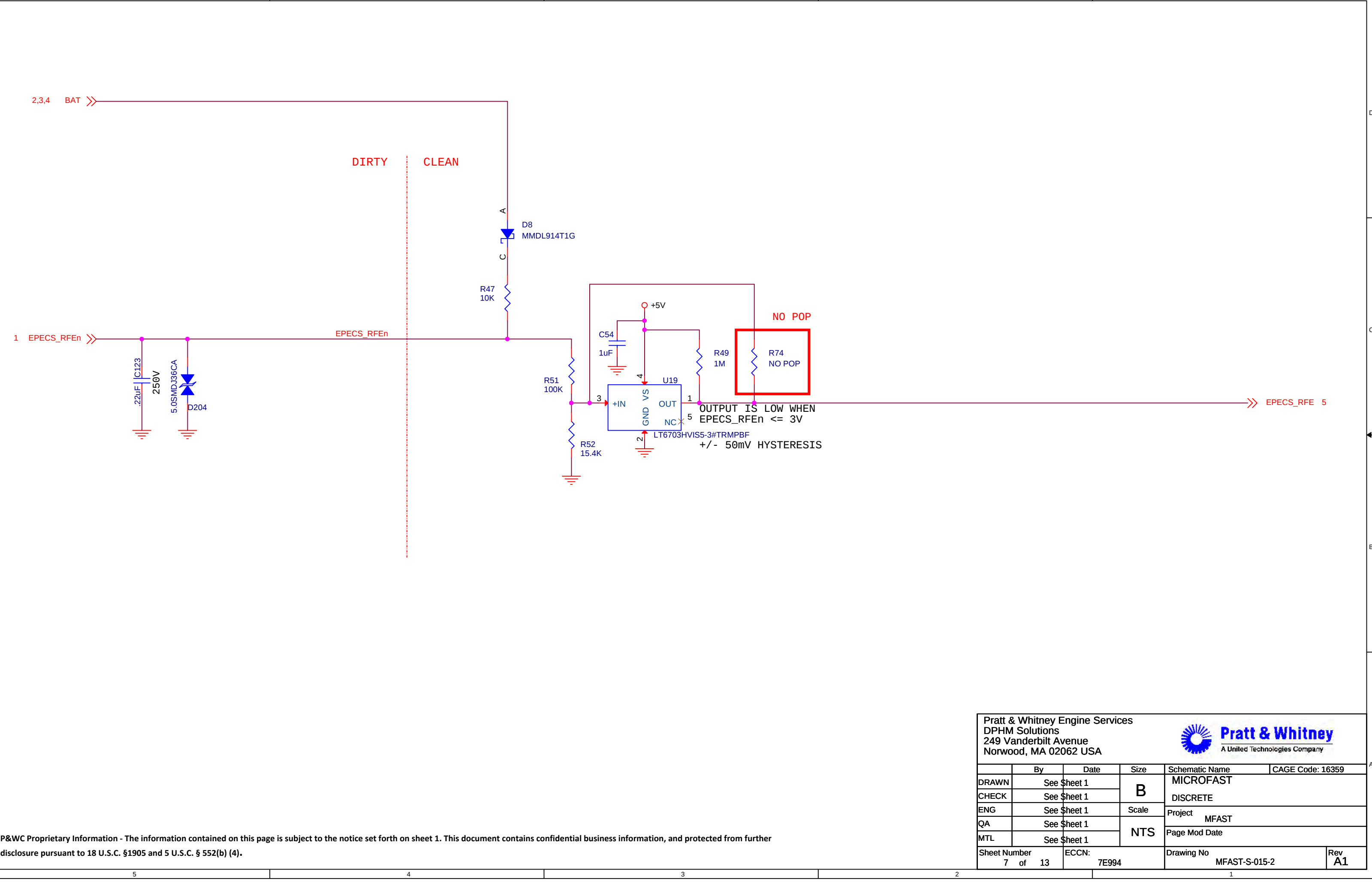
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	By	Date	Size	Schematic Name	CAGE Code: 16359
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CHECK	See Sheet 1			UCONTROLLER	
ENG	See Sheet 1		Scale	Project	MFAST
QA	See Sheet 1		NTS	Page Mod Date	
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Sheet Number 5 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	Rev A1



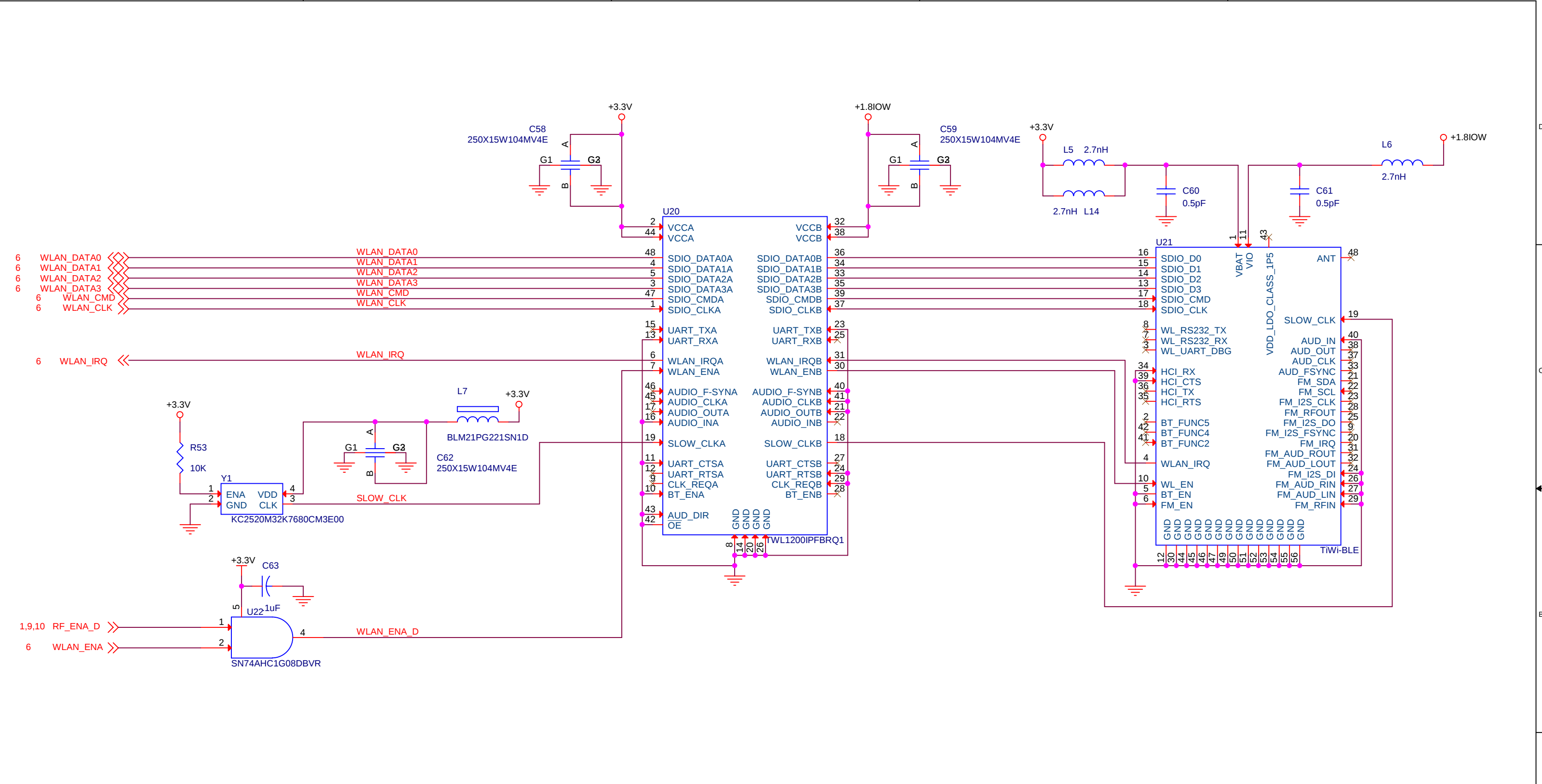


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	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			DISCRETE	
ENG	See Sheet 1		Scale	Project MFAST	
QA	See Sheet 1		NTS	Page Mod Date	
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Sheet Number 7 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	
				Rev A1	

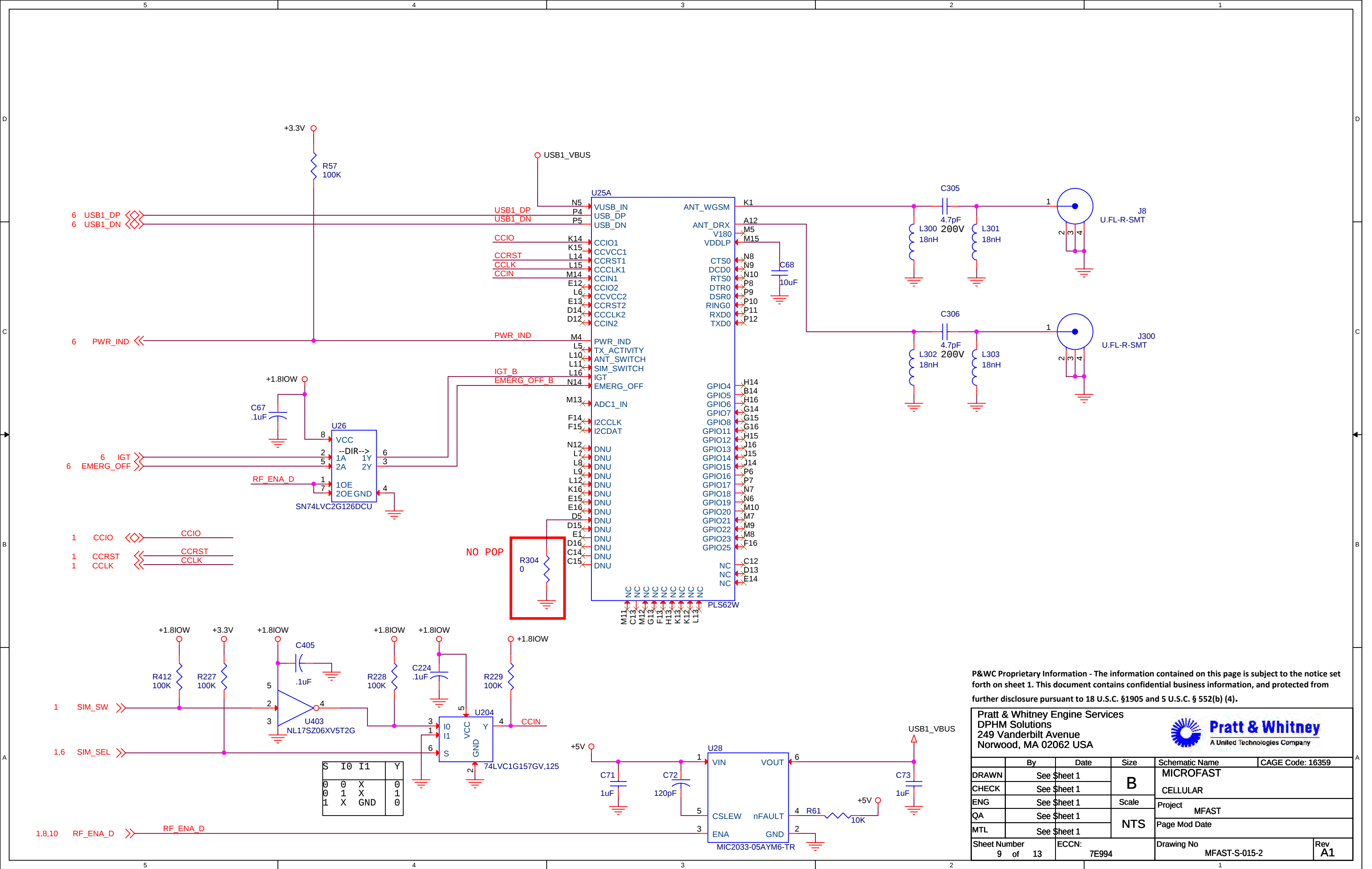


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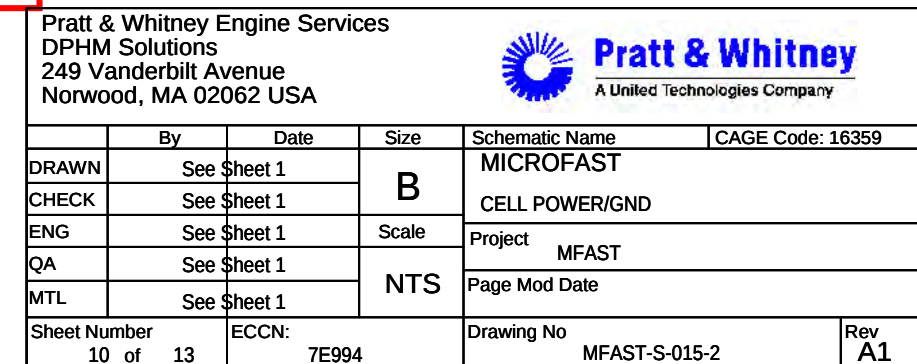
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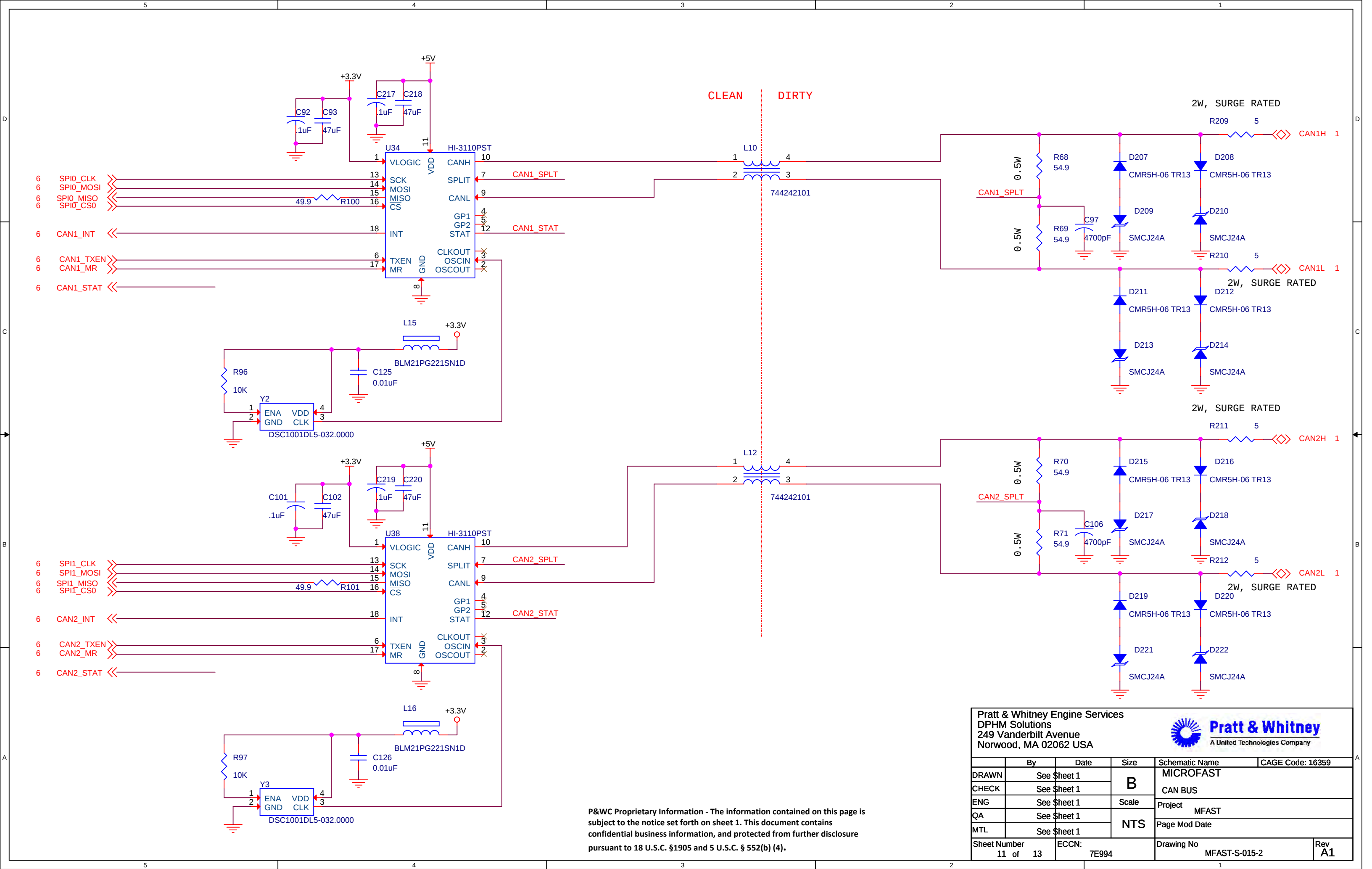
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CHECK	See Sheet 1			WLAN	
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QA	See Sheet 1		NTS	Page Mod Date	
MTL	See Sheet 1				
Sheet Number 8 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	Rev A1



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			 A United Technologies Company		
	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			CELLULAR	
ENG	See Sheet 1		Scale	Project	MFAST
QA	See Sheet 1		NTS	Page Mod Date	
MTL	See Sheet 1				
Sheet Number	ECCN:		Drawing No		Rev
9 of 13	7E994		MFAST-S-015-2		A1





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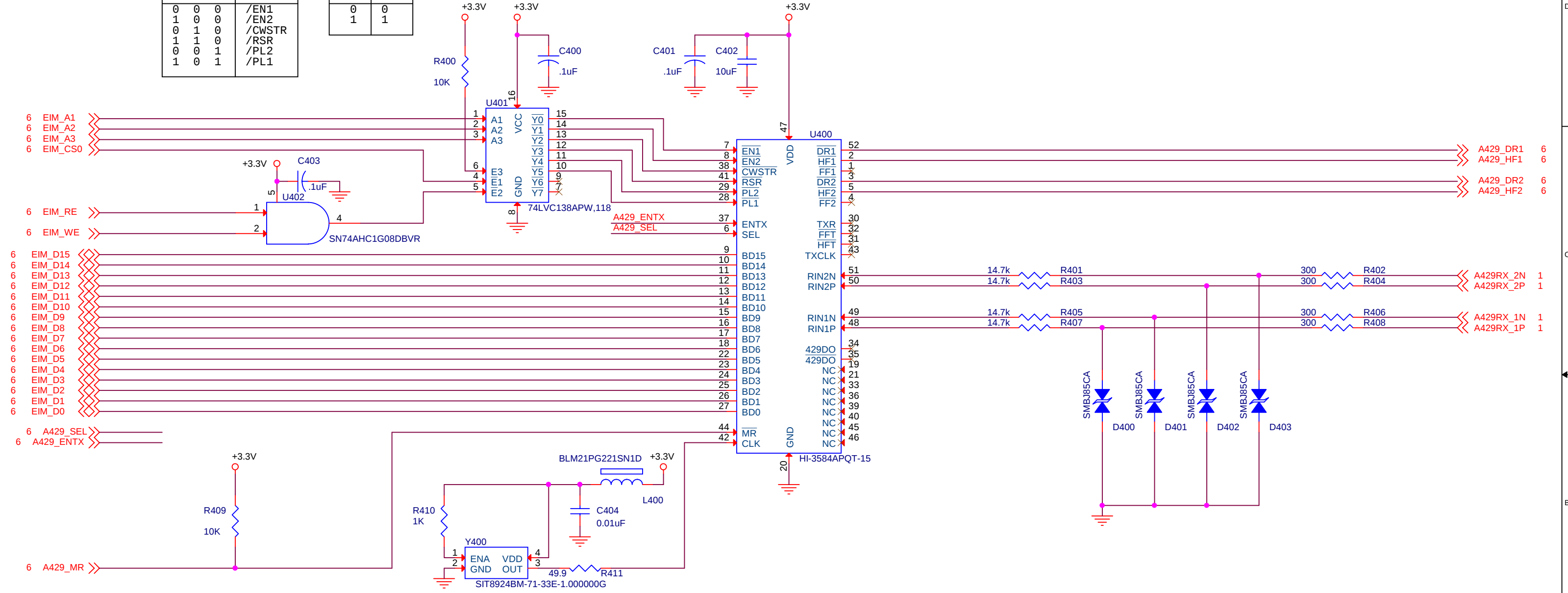
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	By	Date	Size	Schematic Name	CAGE Code: 16359	
DRAWN	See Sheet 1		B	MICROFAST		
CHECK	See Sheet 1			CAN BUS		
ENG	See Sheet 1		Scale	Project	MFAST	
QA	See Sheet 1		NTS	Page Mod Date		
MTL	See Sheet 1					
Sheet Number 11 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	Rev A1	

A1	A2	A3	
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1	0	0	/EN2
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SEL	BYTE
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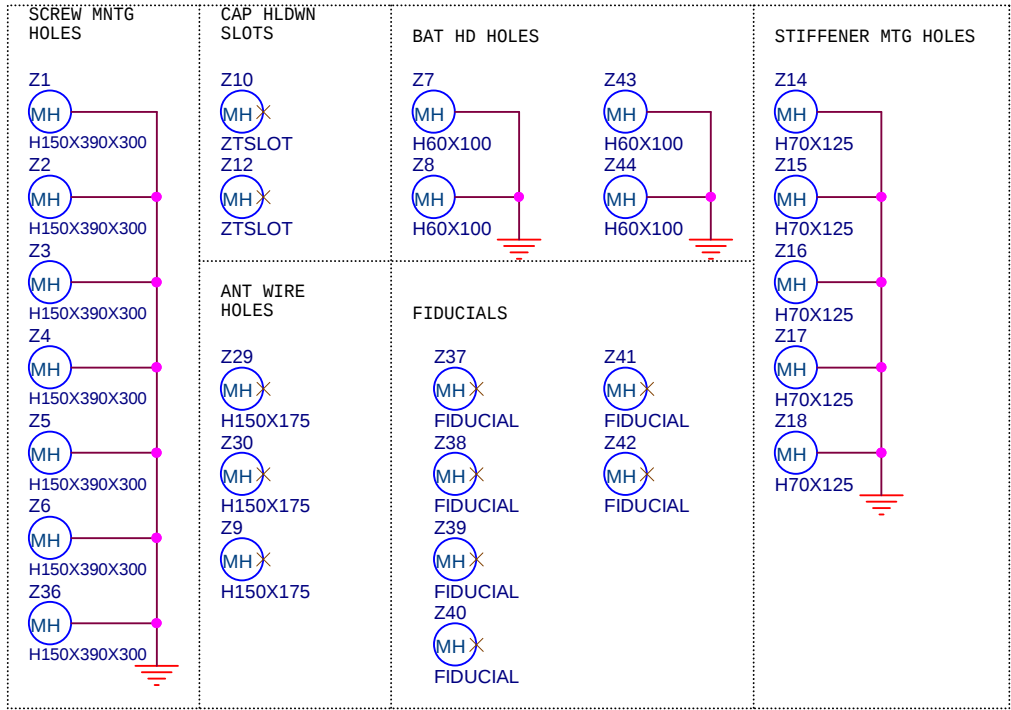
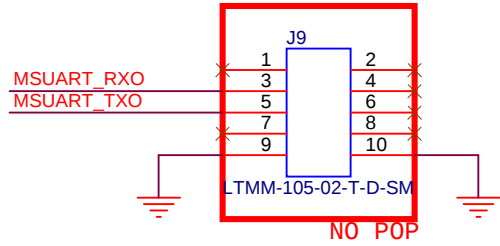
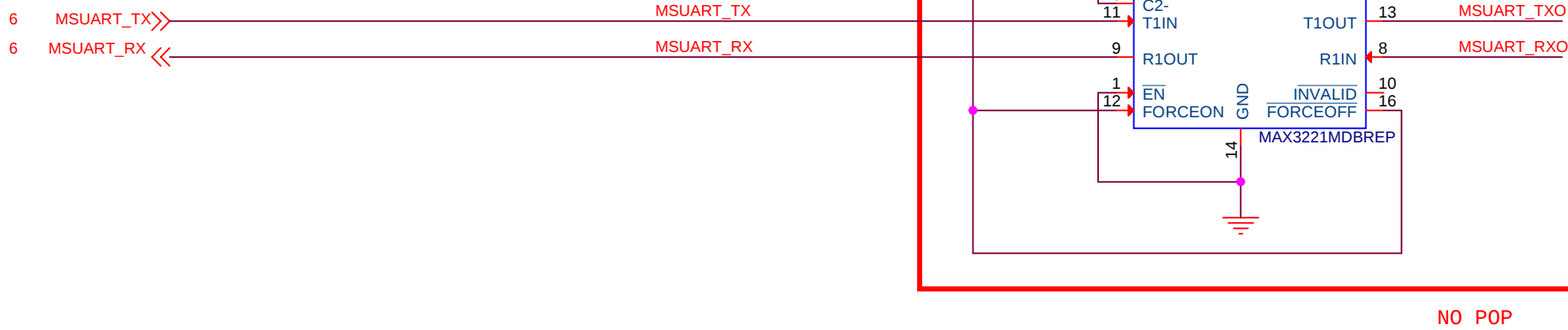
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	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			A429	
ENG	See Sheet 1		Scale	Project MFAST	
QA	See Sheet 1		NTS	Page Mod Date	
MTL	See Sheet 1				
Sheet Number 12 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	Rev A1



Mechanical Board Features

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	By	Date	Size	Schematic Name	CAGE Code: 16359
DRAWN	See Sheet 1		B	MICROFAST	
CHECK	See Sheet 1			SERIAL CONSOLE	
ENG	See Sheet 1		Scale	Project MFAST	
QA	See Sheet 1		NTS	Page Mod Date	
MTL	See Sheet 1				
Sheet Number 13 of 13		ECCN: 7E994		Drawing No MFAST-S-015-2	Rev A1