


TNC Testing Form (REV1)	
Leaf on the Tree	2.1.2.1.1
Device Under Test (Testing Tree Number):	Validation
Date:	11/1/20
Person(s) Conducting Experiment:	Kobe Keopraseuth
Signature:	
Experiment Purpose:	The purpose of this experiment is to validate that our stm32 board can detect and receive KISS packets from our computer over UART. To validate the KISS packet was properly received, the binary KISS packet will be displayed on the serial monitor and a green LED on the board should light up when the packet was successfully received.
Experiment Procedure:	Use Rizwan's software to send a KISS packet to our microcontroller and display what we received, in binary on the serial monitor.
Equipment Settings / Software Settings (w Revision):	We will be using Rizwan's given software to generate and send the KISS packet and visual studio's serial monitor to output the data extraction done by our microcontroller.
Testing Diagram / Picture:	

Data Points:	<div></div> <p>LED Lights up</p> <p>Transmitted Hex: 0xC0,0x00,0x88,0x82,0xAC,0x92,0x88,0x40,0xE2,0x96,0x9E,0xB4,0x8A,0x40,0x40,0x65,0x03,0xF0,0x7E,0x7E,0x7E,0x7E,0xC0.</p> <p>Transmitted HEX Packet</p> <table><tr><td>Start flag</td><td>=</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 1</td><td>=</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 2</td><td>=</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Address Field 3</td><td>=</td><td>1</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Address Field 4</td><td>=</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Address Field 5</td><td>=</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 6</td><td>=</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 7</td><td>=</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Address Field 8</td><td>=</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Address Field 9</td><td>=</td><td>1</td><td>0</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Address Field 10</td><td>=</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>Address Field 11</td><td>=</td><td>1</td><td>0</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td><td>0</td></tr><tr><td>Address Field 12</td><td>=</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 13</td><td>=</td><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Address Field 14</td><td>=</td><td>0</td><td>1</td><td>1</td><td>0</td><td>0</td><td>1</td><td>0</td><td>1</td></tr><tr><td>Control Field</td><td>=</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>1</td><td>1</td></tr><tr><td>PID Field</td><td>=</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>Info Field 1</td><td>=</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Info Field 2</td><td>=</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Info Field 3</td><td>=</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Info Field 4</td><td>=</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>Stop flag</td><td>=</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> <p>Serial monitor</p>	Start flag	=	1	1	0	0	0	0	0	0	Address Field 1	=	1	0	0	0	1	0	0	0	Address Field 2	=	1	0	0	0	0	0	1	0	Address Field 3	=	1	0	1	0	1	1	0	0	Address Field 4	=	1	0	0	1	0	0	1	0	Address Field 5	=	1	0	0	0	1	0	0	0	Address Field 6	=	0	1	0	0	0	0	0	0	Address Field 7	=	1	1	1	0	0	0	1	0	Address Field 8	=	1	0	0	1	0	1	1	0	Address Field 9	=	1	0	0	1	1	1	1	0	Address Field 10	=	1	0	0	0	0	1	0	0	Address Field 11	=	1	0	0	0	1	0	1	0	Address Field 12	=	0	1	0	0	0	0	0	0	Address Field 13	=	0	1	0	0	0	0	0	0	Address Field 14	=	0	1	1	0	0	1	0	1	Control Field	=	0	0	0	0	0	0	1	1	PID Field	=	1	1	1	1	0	0	0	0	Info Field 1	=	0	1	1	1	1	1	1	0	Info Field 2	=	0	1	1	1	1	1	1	0	Info Field 3	=	0	1	1	1	1	1	1	0	Info Field 4	=	0	1	1	1	1	1	1	0	Stop flag	=	1	1	0	0	0	0	0	0
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Interpreted Notes:	As shown when a KISS packet is sent over UART, the microcontrollers LED lights up. Also the binary bit stream of the KISS packet corresponds to the HEX packet sent over UART.																																																																																																																																																																																																																												
Recommendations for Modifications:	None																																																																																																																																																																																																																												