TxS Customer Option Sheet (to be filled in by ISIS)			
Production Work Order		Sales Responsible	
Production Code		Tech. Responsible	
Customer		Project	

TxS Frequencies (to be filled in by customer)	
Downlink Centre Frequency (2100 MHz - 2500 MHz)	

Note: The frequency needs to be selected in consultation with the applicable radio regulations and coordinated following the applicable ITU procedures.

TxS Configuration (to be filled in by customer)				
Maximum bitrate (bps)				

Note: The maximum available bitrate in bits per second is 115 200 bps. The minimum bitrate in bits per second is 9600 bps.
Theses values are based on BPSK modulation in combination with the ISIS SDR ground segment implementation. Lower bitrates could be available under request. Please consult ISIS for more information.

Variable bitrate	Yes ☐	No ☐	

Note: The data rate can be changed in steps of 1/2, 1/4 and 1/8 with respect to the maximum bitrate. Please note that the minimum bitrate is 9600 bps.

Default bitrate (bps)	Max ☐	Max/2 ☐	Max/4 ☐	Max/8 ☐

Note: This is the default bitrate at transmitter switch-on and can be changed by I2C command.

I2C Protocol Settings				
Transmitter Address	Default [0x35] ☐		Alternative	
Address Mode (7-bit or 10-bit)	7-bit ☐		10-bit ☐	
On-board I2C pull-up resistors	Yes ☐	No ☐	Value	

AX25 Call Signs							
From Callsign 6 Characters Max.	1	2	3	4	5	6	
	SSID 0-9						
To Callsign 6 Characters Max.	1	2	3	4	5	6	
	SSID 0-9						

Modulation scheme
BPSK with G3RUH scrambling, AX.25 UI frames

Note: Compatible with the ISIS SDR ground segment implementation. Alternative modulation schemes could be available under request. Please consult ISIS for more information.

Electrical supply			
Single unregulated 6.5-25V (Default) ☐		Dual regulated (3.3V and 5V) ☐	

Note: A maximum of 4.5W are required from power in transmitting mode. Whenever the TxS is supplied by using the regulated 3V3 line, it must be ensured that the power supply is capable of delivering the current required to ensure the proper functionality of the System. Therefore, ISIS recommendation is to make use of single unregulated supply.

Grounded Mounting holes	Yes ☐	No ☐	

CSKB pin-out configuration (to be filled in by customer)				
I^2C Clock	H1-43 default ☐	Alternative	H1-21 ☐	
I^2C Data	H1-41 default ☐	Alternative	H1-23 ☐	
Power (single unregulated)	H2-45 default ☐	Alternative	H2-47 ☐	
Power(single unregulated)	H2-46 default ☐	Alternative	H2-48 ☐	
Power (regulated 3V3)	H2-27 default ☐	Alternative	H2-28 ☐	
Power(regulated 5V)	H2-25 default ☐	Alternative	H2-26 ☐	
GPIO	H1-46 ☐			

Connector Type and Placement (to be filled in by customer)		
Transmitter Connector Type and Mounting Position		
Type and placement	MCX Straight Top ☐	
	MCX angled 270˚ Top ☐	
	SMA angled 270˚ Top ☐	

CSKB Connector			
Type	Standard Stack Thru	ESQ-126-39-G-D ☐	Samtec
	Stack Termination Bottom	SSQ-126-21-G-D ☐	

Note: The SMA connector is 1.5mm higher than the Cubesatkitbus interface connector. Therefore, when the TxS is is palce at the stack termination bottom another SAMTEC connector should be placed to ensure a proper distance between the CSKB components.

External Baseband I/Q			
External baseband connection	Yes ☐	No ☐	

Note: Please note that external I/Q connection will require additional hardware as connectors and/or cables. Consult ISIS for more information.

Gound segment implementation (to be filled in by customer)			
Compatible ISIS SDR Receiver	Yes ☐	No ☐	
Other			

Comments and Remarks on Customer Satellite System