PSP CDS IN FLASH APIs

CFE_PSP_SetStaticCRC

Syntax	void CFE_PSP_SetStaticCRC(uint32 uiNewCRC)
Description	Set a new CRC value This function sets the new CRC value.
Parameters	uiNewCRC - New CRC
Returns	None
Notes	This function is just for testing purpose by forcing the CRC mismatched and read CDS data from Flash.

CFE_PSP_GetStaticCRC

Syntax	uint32 CFE_PSP_GetStaticCRC(void)
Description	Get the previous CRC value This function gets the previous CRC value.
Parameters	None
Returns	Calculated CRC value
Notes	This function is just for testing purpose by forcing the CRC mismatched and read CDS data from Flash.

CFE_PSP_CalculateCRC

Syntax	uint32 CFE_PSP_CalculateCRC(const void *DataPtr, uint32 DataLength, uint32 InputCRC)
Description	Calculate 16-bits CRC This function calculates the 16-bit CRC from input data.
Parameters	[in] DataPtr - Pointer to the input data buffer [in] DataLength - Data buffer length [in] InputCRC - A starting value for use in the CRC calculation.
Returns	Calculated CRC value
Notes	InputCRC allows the user to calculate the CRC of non-contiguous blocks as a single value. Nominally, the user should set this value to zero. CFE now includes a function to calculate the CRC. - uint32 CFE_ES_CalculateCRC(void *pData, uint32 DataLength, uint32 InputCRC, uint32 TypeCRC); Only CFE_MISSION_ES_CRC_16 is implemented as the TypeCRC.

CFE_PSP_ReadCDSFromFlash

Syntax	int32 CFE_PSP_ReadCDSFromFlash(uint32 *puiReadBytes)
Description	Read the whole CDS data from Flash This function reads the whole CDS data on Flash to reserved memory on RAM.
Parameters	puiReadBytes[out] - Number of read bytes
Returns	CFE_PSP_SUCCESS CFE_PSP_ERROR
Notes	Warning: It took about 117ms to read 131072 bytes (128KB) whole CDS area from Flash.

CFE_PSP_WriteCDSToFlash

Syntax	int32 CFE_PSP_WriteCDSToFlash(uint32 *puiWroteBytes)
Description	Write the whole CDS data on Flash This function write the whole CDS data from reserved memory on RAM to Flash.
Parameters	puiWroteBytes[out] - Number of written bytes
Returns	CFE_PSP_SUCCESS CFE_PSP_ERROR
Notes	Warning: It took about 117ms to write 131072 bytes (128KB) whole CDS data to Flash.