COSMOS Command and Telemetry Handbook

For the COSMOS Demo Project

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Commands

COSMOS STARTCMDLOG

Starts logging commands for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode **Id Value: 3**	3	3	3	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

COSMOS STARTLOGGING

Starts logging both commands and telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode **Id Value: 2**	2	2	2	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

COSMOS STARTTLMLOG

Starts logging telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode **Id Value: 4**	4	4	4	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to start logging on - ALL starts logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

COSMOS STOPCMDLOG

Stops logging commands for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type
OPCODE	COSMOS Command Opcode **Id Value: 6**	6	6	6	32	32	UINT
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING
LABEL	Optional label to place on log files				352	0	STRING

COSMOS STOPLOGGING

Stops logging both commands and telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode **Id Value: 5**	5	5	5	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

COSMOS STOPTLMLOG

Stops logging telemetry for an interface

Item Name	Description	Min	Max	Default	Bit Offset	Bit Size	Data Type	Units
SYNC	COSMOS Command Sync Pattern	449838109	449838109	449838109	0	32	UINT	
OPCODE	COSMOS Command Opcode **Id Value: 7**	7	7	7	32	32	UINT	
LENGTH	COSMOS Command Length of Command Data in Bytes	0	65536	3	64	32	UINT	
INTERFACE	Interface to stop logging on - ALL stops logging on all interfaces			ALL	96	256	STRING	
LABEL	Optional label to place on log files				352	0	STRING	

Telemetry Packets

COSMOS LIMITS_CHANGE

COSMOS limits change

Item Name	Description	Bit Offset	Bit Size	Data Type	Units	Format
RECEIVED_TIMESECONDS	COSMOS Received Time (UTC, Floating point, Unix epoch) Read Conversion: ReceivedTimeSecondsConversion	0	0	DERIVED		%0.6f
RECEIVED_TIMEFORMATTED	COSMOS Received Time (Local time zone, Formatted string) Read Conversion: ReceivedTimeFormattedConversion	0	0	DERIVED		
	COSMOS packet received count					

Item Name	Description	Bit Offset	Bit Size	Data Type	Units Format
RECEIVED_COUNT		0	0	DERIVED	
	Read Conversion: ReceivedCountConversion				
PKT_ID	Packet ID **Id Value: 2**	0	8	UINT	
TARGET	Target name	8	240	STRING	
PACKET	Packet name	248	240	STRING	
ITEM	Item that changed limits state	488	240	STRING	
OLD_STATE	The old limit state	728	240	STRING	
NEW_STATE	The new limit state	968	240	STRING	

COSMOS VERSION

COSMOS version information

Item Name	Description	Bit Offset	Bit Size	Data Type	Units Format
RECEIVED_TIMESECONDS	COSMOS Received Time (UTC, Floating point, Unix epoch)	0	0	DERIVED	%0.6f
	Read Conversion: ReceivedTimeSecondsConversion				
RECEIVED_TIMEFORMATTED	COSMOS Received Time (Local time zone, Formatted string)	0	0	DERIVED	
	Read Conversion: ReceivedTimeFormattedConversion				
RECEIVED_COUNT	COSMOS packet received count	0	0	DERIVED	
	Read Conversion: ReceivedCountConversion				
PKT_ID	Packet ID **Id Value: 1**	0	8	UINT	
COSMOS	COSMOS version	8	240	STRING	
RUBY	Ruby version	248	240	STRING	
CTDB	Command Telemetry Database Version	488	240	STRING	
USER	User Version	728	240	STRING	