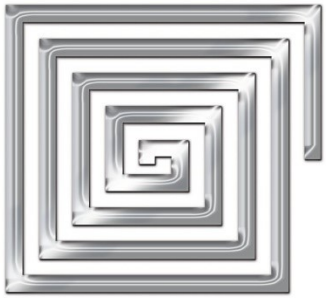

MEMSCAP

The Power of a Small World™

TP1200 EEPROM Layout

Revision History

Revision	Reference	Released Date	Approved By	Description
00	872/14	2015-02-27	SST	Initial version
01	2005/18	2018-08-08	SST	Complete EEprom layout table updated. Added in the EEPROM Layoyt Table: "Max=30" for LUT_P_ADC and "Max = 140" for LUT_T_ADC

EEPROM Layout

Byte	Format	Name	Default	Description
System block				
0	Uint8	EE_start	AA_h	Unique start byte
1-2	Uint16	EE_ident	11587_d	SWD doc number of EEPROM definition.
3	Uint8	EE_layout	0_d	Version of EE_ident
4-7	Uint8 x 4	Reserved	00_h	Bytes reserved
Product Info				
8-11	Uint32	Sensor_ S/N	-	Sensor serial number
12-19	Char x 8	Product_id	-	Memscap partnumber
20	Uint8	Day	-	Date of calibration
21	Uint8	Month	-	
22-23	Uint16	Year	-	
Transducer Configuration				
	ADC Setup			
24-27	Uint32	ADC_Mode	4001_h *	A/D General Configuration
28	Uint8	ADC_GPOCON	2_h *	A/D IO Register
29	Uint8		00_h	Padding
30-31	Uint16	ADC_timeout	20_d *	A/D timeout of conversion
	ADC Pressure Channel Config			
32-35	Uint32	ADC_config_P	610_h *	A/D Configuration for pressure channel
36-39	Uint32	ADC_offset_P	-	A/D Offset for pressure channel
40-43	Uint32	ADC_gain_P	-	A/D Gain for pressure channel
44-47	Uint32	ADC_max_P	-	Maximum A/D value during calibration
48-51	Uint32	ADC_min_P	-	Minimum A/D value during calibration
52-53	Int16	Max_P	-	Maximum pressure value in range
54-55	Int16	Min_P	-	Minimum pressure value in range
56-63	Char x 8	Unit_P	Mbar	Unit of linearized pressure
64	Uint8	Points_P	30_d *	Number of points in LUT. Max = 30
65-67	Uint8 x 3		00_h	Padding
	ADC Temperature Channel Config			
68-71	Uint32	ADC_config_T	1_h *	A/D Configuration for temperature channel
72-75	Uint32	ADC_offset_T	-	A/D Offset for pressure temperature channel
76-79	Uint32	ADC_gain_T	-	A/D Gain for pressure temperature channel
80-83	Uint32	ADC_max_T	-	Maximum A/D value during calibration
84-87	Uint32	ADC_min_T	-	Minimum A/D value during calibration
88-89	Int16	Max_T	85_d *	Maximum calibrated temperature value
90-91	Int16	Min_T	-55_d *	Minimum calibrated temperature value
92-99	Char x 8	Unit_T	C	Unit of linearized temperature
100	Uint8	Points_T	140_d *	Number of points in LUT. Max = 140
101-103	Uint8 x 3		00_h	Padding
CRC				
104-107	Uint32	CRC	-	CRC of initial EEPROM blocks

Byte	Format	Name	Default	Description
Linearization				
	Pressure LUT			
108-227	Float32 x Points_P	LUT_P_ADC	-	ADC values for pressure
228-787	Float32 x Points_T	LUT_T_ADC	-	ADC values for temperature
788-17587	Float32 x Points_P x Points_T	LUT_P	-	LUT for compensated pressure
	Temperature LUT			
17588	Uint8	Points_lin_T	12_d *	Number of lin points for temperature Max = 12
17589-17591	3 x Uint8		00_h	Padding
17592-17687	Float32 x 2 x Points_lin_T	Lin_data_T	-	Matrix of 2 x Points_lin_T
CRC				
17688-17691	Uint32	CRC	-	CRC of Linearization data
System Data				
17692-17695	Float32	SW_offset	0_d	

*) Contents can be different from default value.

All 32-bits floating point numbers in the table use ANSI/IEEE standard 754-1985. Signed integers are two's complement. Least significant byte is first, if not specified.