Address	Element	Description
0	**partNum**	Device ID: uint16_t This ID is used to identify the ADPD4100 sensor device type and do specific tuning. 0x00C0 – ADPD4000 device – on DVT1 watch 0x01C2 – ADPD4100 device - on DVT2/3 watch
1	**targetSlots**	Slot selection: uint16_t Determine the slot from the 12 slots available on ADPD4000/ADPD4100
2	**targetChs**	Target Channel(s) selection and shift: uint8_t The lower nibble (Bit[3:0) chooses the input channel value to HRM from the slot (selected by targetSlots) while Bit[6:4] chooses the shift value of channel signal in mode 3 and 4. Bit7 is used as Channel2 packetization control in modes 1,3,4. Bit[3:0]: channel mode Bit[6:4]: shift (for mode 3 and 4) Bit[7]: Channel2 packetization control (for mode 1,3 and 4). Setting this bit will disable the Channel2 packetization. 1 - Channel 1 (default) 2 - Channel 2 3 – Channel1 will be fed as PD1+PD2 and shifted by value in [6:4] 4 – Channel1 and Channel2 shifted by value in [6:4] and sum. Eg: - 0x23 →(Channel1>>2), 0x13 →(Channel1>>1), 0x24 →(Channel1>>2+Channel2>>2), 0x14 →(Channel1>>1+Channel2>>1),
3	**deviceMode**	Not used
4	**featureSelect**	Enable pre-process features: uint16_t Used to enable/disable some of the pre-process states of the ADPD State Machine. This should not be used unless the user is fully aware of what they are doing. Bit is 1: feature enabled; 0: feature disabled Bit 0 → Detect On Bit 1 → Detect Off

		Bit 2 → TIA Saturation check Bit 4 → Sample Rate change in Dynamic AGC Bit 6 → Not used Bit 8 → Dynamic AGC Bit 9 → Static AGC Bit 12 → HRM algorithm
5	**drTime**	Data Rate Time: uint16_t Sets the time used to determine the data rate adjustment factor. To account for the fact that clock calibration does not align exactly on the rate needed. The data rate is determined during the running of the algorithm; this factor is then used to adjust the heart rate value determined by the algorithm. The input is a time in milliseconds. The default is 0ms.
6	**DutyCycle**	Not used (uint32_t)
7	**hrmInputRate**	Used to check the sampling rate to be used for the algorithm. ADI HRM Algorithm used in this package will support only 50Hz: uint16_t To support a higher sample rate of ADPD and ADXL, both data should be decimated to 50Hz.
8	**syncMode**	Not used
9	**proximityRate**	Not used
10	**proximityTimeout**	Not used
11	**proximityOnLevel**	Not used
12	**staticAgcRecalTime**	Time in minutes for static AGC recalibration. Set this value to 0x00 to disable this feature.
13	**staicAgcRecalSlotSelect**	Slot selection for AGC Recalibration: uint16_t Eg.0x1E0 - Slots 5(slot F),6(slot G),7(slot H) and 8(slot I) selected for AGC recalibration. Default value set to 0x1E0
14	**Res8_1**	Reserved(uint8_t)
15	**Res16_2**	Reserved(uint16_t)
16	**Res16_3**	Reserved(uint16_t)
17	**Res32_2**	Reserved(uint32_t)
18	**initialLedPulse**	Initial Pulse for Static AGC in PPG application: uint16_t When static AGC is not enabled, this will be the

		pulse for the session.
19	**Res8_2**	Reserved(uint8_t)
20	**Res8_3**	Reserved(uint8_t)
21	**Res32_3**	Reserved(uint32_t)
22	**rmssdSampleWindow**	RMSSD calculation window size: uint16_t This is used during RMSSD calculation of HRV data.
23	**Res8_4**	Reserved (uint8_t)
24	**Res16_4**	Reserved(uint16_t)
25	**Res16_5**	Reserved(uint16_t)
26	**maxSamplingRate**	Maximum sampling rate used for Dynamic AGC: uint16_t
27	**targetDcPercent**	Target DC level in percentage: uint8_t Used in dynamic AGC to set the target current percentage during AFE saturation. It is also used for checking DC level during pulse adjust
28	**maxLedCurrent**	Set Maximum Current for dynamic AGC: uint16_t
29	**maxPulseNum**	Set Maximum LED pulses dynamic AGC: uint8_t
30	**satAdjustPercentForStaticAgc**	Saturation adjust in percentage: uint8_t Used in Static AGC to set the target current percentage during AFE saturation. (It is also used by ppg application when static AGC is disabled)
31	**Res8_5**	Reserved(uint8_t)
32	**InitialCurrentTiaGain**	LED current & TIA gain when static AGC is disabled: uint16_t Eg:- 0000BF24 -> current(bit[15:8]) and Initial TIA Gain channel2 [5:3] channel1[2:0]) where, current is the actual LED current Initial TIA Gain setting is 000: 200 kΩ. 001: 100 kΩ. 010: 50 kΩ. 011: 25 kΩ. 100: 12.5 kΩ
33	**motionThreshold**	Low Motion activity threshold(For dynamic AGC): uint32_t

34	**motionCheckPeriod**	Upper = check period, Lower = rest time(dynamic AGC): uint32_t Default set to Upper=2min and Lower=3sec
35	**motionThresholdHigh**	High motion activity threshold (dynamic AGC): uint32_t
36	**motionCheckPeriodHigh**	Low & High motion activity period check (dynamic AGC): uint32_t Default set to 6sec for low and high activity
37	**Res8_6**	Reserved (uint8_t)
38	**Res16_6**	Reserved(uint16_t)
39	**Res16_7**	Reserved(uint16_t)
40	**sqiLowPowerThreshold**	SQI low power threshold: uint16_t If SQI is greater than this threshold, then dynamic AGC will decrease the power. This means the signal is good. Default: (0.25*1024)
41	**sqiHighPowerThreshold**	SQI high power threshold: uint16_t If SQI is less than or equal to this threshold, then dynamic AGC will increase the power. This means the signal is poor. Default: (0.15*1024)