**3038-00 FLASH Memory Organization**

**Revision History:**

|  |  |  |  |
| --- | --- | --- | --- |
| Revision | Date | Owner | Description |
| 1.0 | 28.10.2021 | A. Hanin | Initial release (based on 2913-30) |
| 1.1 | 7.02.2022 | A. Hanin | Page 0 and 8 updated |
| 1.2 | 10.02.2022 | A. Hanin | Page 2, 7, 8 update |
| 1.3 | 17.02.2022 | A. Hanin | Page 0 update |
| 1.4 | 20.02.2022 | A. Hanin | Page 9 added |
| 1.5 | 24.02.2022 | A. Hanin | Page 0 update |
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Table of Contents

[1 Scope 3](#_Toc86332565)

[2 Introduction 3](#_Toc86332566)

[3 Calibration Tables storage 4](#_Toc86332567)

[4 Calibration Tables description 5](#_Toc86332568)

# Scope

The purpose of this document is to describe the memory organization of the controller FLASH memory for the SSPA module.

# Introduction

The SSPA module has on board FLASH memory. The FLASH memory is an SPI device (AT25DF021A-MAHNHR-T) of maximum capacity of 2MBits arranged as pages of 256 bytes each. The following sections detail the structure of the memory for programming convenience.

# Calibration Tables storage

Page 0: Constant values (SN, cal. date, limits, etc.)

Pages 1 - 4: VVA values for temperature index and frequency bit and DC4 control

Page 5: Vdd values for temperature index and DC4 control

Vgg values for temperature index and DC4 control

Pages 6 and 7:  VVA offset1 for attenuation (DCA) correction

DCA value for attenuation control

VVA offset2 for Fine Tune control over frequency

VDD offset1 for Fine Tune control over frequency

Page 8: VVA value for CAL\_SAT output over temperature

VVA offset1 for CAL\_SAT output over frequency

Tx pulse rising edge delay over temperature

Tx pulse falling edge delay over temperature

Operation logic:

VVA = VVA(temp., freq., DC4) + VVA\_offset1 + VVA\_offset2

Vdd = Vdd(temp., DC4) + VDD offset1

# Calibration Tables description

Page 0:

|  |  |  |
| --- | --- | --- |
| Data | **Byte** | **Description** |
| SSPA Serial Number | 0 |  |
| Hardware Version | 2 |  |
| Pulse width clamping | 4 | 100 MHz clock ticks. |
| Pulse over duty cycle clamping | 6 | 520 uS |
| Vdd 28V OV | 8 | 32V (28V nominal) |
| Vdd 28V UV | 10 | 22V (28V nominal) |
| Vdd 28V hysteresis | 12 | 1V |
| Vgg -5V OV | 14 | -4V (-5V nominal) |
| Vgg -5V UV | 16 | -6V (-5V nominal) |
| Vgg -5V hysteresis | 18 | 0.5V |
| Vccio 3.3V OV | 20 | 4V (3.3V nominal) |
| Vccio 3.3V UV | 22 | 2.7V (3.3V nominal) |
| Vccio 3.3V hysteresis | 24 | 0.2V |
| VDRV1-4V OV | 26 | 4.5V (4V nominal) |
| VDRV1-4V UV | 28 | 3.5V (4V nominal) |
| VDRV1-4V hysteresis | 30 | 0.5V |
| VDRV2-5V OV | 32 | 6V (5V nominal) |
| VDRV2-5V UV | 34 | 4V (5V nominal) |
| VDRV2-5V hysteresis | 36 | 0.5V |
| VDRV3-8V  OV | 38 | 10V (8V nominal) |
| VDRV3-8V  UV | 40 | 6V (8V nominal) |
| VDRV3-8V hysteresis | 42 | 0.5V |
| 48V\_DC\_Overvoltage | 44 | 52V |
| 48V\_DC\_Overvoltage | 46 | 44V |
| 48V\_DC\_Overcurrent | 48 | 3A |
| Vgg2 (TGA2700) gate voltage control | 50 | fixed value for all temp., freq., FT and modes |
| Vdd2 (TGA2700) drain voltage control | 52 | with DC4 OFF |
| Vdd2\_DC4 (TGA2700) drain voltage control | 54 | with DC4 ON |
| Vdd 5V drain voltage control | 56 | fixed value for all temp., freq., FT and modes |
| Vdd 4V drain voltage control | 58 | fixed value for all temp., freq., FT and modes |
| CALIBRATION\_DATE | 60 | Calibration Date YY MSB |
| CALIBRATION\_DATE | 62 | Calibration Date YY LSB |
| CALIBRATION\_DATE | 64 | Calibration Date MM |
| CALIBRATION\_DATE | 66 | Calibration Date DD |

Page 1: (VVA control for 46dBm over frequency and temperature):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_T1\_FREQ1 | 0 | T=-31 ÷ -28 |
| PA\_VVA\_T1\_FREQ2 | 2 |
| PA\_VVA\_T1\_FREQ3 | 4 |
| PA\_VVA\_T1\_FREQ4 | 6 |
| PA\_VVA\_T1\_FREQ5 | 8 |
| PA\_VVA\_T1\_FREQ6 | 10 |
| PA\_VVA\_T1\_FREQ7 | 12 |
| PA\_VVA\_T1\_FREQ8 | 14 |
| PA\_VVA\_T2\_FREQ1 | 16 | T=-27 ÷ -24 |
| PA\_VVA\_T2\_FREQ2 | 18 |
| PA\_VVA\_T2\_FREQ3 | 20 |
| PA\_VVA\_T2\_FREQ4 | 22 |
| PA\_VVA\_T2\_FREQ5 | 24 |
| PA\_VVA\_T2\_FREQ6 | 26 |
| PA\_VVA\_T2\_FREQ7 | 28 |
| PA\_VVA\_T2\_FREQ8 | 30 |
| PA\_VVA\_T3\_FREQ1 | 32 | T=-23 ÷ -20 |
| PA\_VVA\_T3\_FREQ2 | 34 |
| PA\_VVA\_T3\_FREQ3 | 36 |
| PA\_VVA\_T3\_FREQ4 | 38 |
| PA\_VVA\_T3\_FREQ5 | 40 |
| PA\_VVA\_T3\_FREQ6 | 42 |
| PA\_VVA\_T3\_FREQ7 | 44 |
| PA\_VVA\_T3\_FREQ8 | 46 |
| PA\_VVA\_T4\_FREQ1 | 48 | T=-19 ÷ -16 |
| PA\_VVA\_T4\_FREQ2 | 50 |
| PA\_VVA\_T4\_FREQ3 | 52 |
| PA\_VVA\_T4\_FREQ4 | 54 |
| PA\_VVA\_T4\_FREQ5 | 56 |
| PA\_VVA\_T4\_FREQ6 | 58 |
| PA\_VVA\_T4\_FREQ7 | 60 |
| PA\_VVA\_T4\_FREQ8 | 62 |
| PA\_VVA\_T5\_FREQ1 | 64 | T=-15 ÷ -12 |
| PA\_VVA\_T5\_FREQ2 | 66 |
| PA\_VVA\_T5\_FREQ3 | 68 |
| PA\_VVA\_T5\_FREQ4 | 70 |
| PA\_VVA\_T5\_FREQ5 | 72 |
| PA\_VVA\_T5\_FREQ6 | 74 |
| PA\_VVA\_T5\_FREQ7 | 76 |
| PA\_VVA\_T5\_FREQ8 | 78 |
| PA\_VVA\_T6\_FREQ1 | 80 | T=-11 ÷ -8 |
| PA\_VVA\_T6\_FREQ2 | 82 |
| PA\_VVA\_T6\_FREQ3 | 84 |
| PA\_VVA\_T6\_FREQ4 | 86 |
| PA\_VVA\_T6\_FREQ5 | 88 |
| PA\_VVA\_T6\_FREQ6 | 90 |
| PA\_VVA\_T6\_FREQ7 | 92 |
| PA\_VVA\_T6\_FREQ8 | 94 |
| PA\_VVA\_T7\_FREQ1 | 96 | T=-7 ÷ -4 |
| PA\_VVA\_T7\_FREQ2 | 98 |
| PA\_VVA\_T7\_FREQ3 | 100 |
| PA\_VVA\_T7\_FREQ4 | 102 |
| PA\_VVA\_T7\_FREQ5 | 104 |
| PA\_VVA\_T7\_FREQ6 | 106 |
| PA\_VVA\_T7\_FREQ7 | 108 |
| PA\_VVA\_T7\_FREQ8 | 110 |
| PA\_VVA\_T8\_FREQ1 | 112 | T=-3 ÷ 0 |
| PA\_VVA\_T8\_FREQ2 | 114 |
| PA\_VVA\_T8\_FREQ3 | 116 |
| PA\_VVA\_T8\_FREQ4 | 118 |
| PA\_VVA\_T8\_FREQ5 | 120 |
| PA\_VVA\_T8\_FREQ6 | 122 |
| PA\_VVA\_T8\_FREQ7 | 124 |
| PA\_VVA\_T8\_FREQ8 | 126 |
| PA\_VVA\_T9\_FREQ1 | 128 | T=1 ÷ 4 |
| PA\_VVA\_T9\_FREQ2 | 130 |
| PA\_VVA\_T9\_FREQ3 | 132 |
| PA\_VVA\_T9\_FREQ4 | 134 |
| PA\_VVA\_T9\_FREQ5 | 136 |
| PA\_VVA\_T9\_FREQ6 | 138 |
| PA\_VVA\_T9\_FREQ7 | 140 |
| PA\_VVA\_T9\_FREQ8 | 142 |
| PA\_VVA\_T10\_FREQ1 | 144 | T=5 ÷ 8 |
| PA\_VVA\_T10\_FREQ2 | 146 |
| PA\_VVA\_T10\_FREQ3 | 148 |
| PA\_VVA\_T10\_FREQ4 | 150 |
| PA\_VVA\_T10\_FREQ5 | 152 |
| PA\_VVA\_T10\_FREQ6 | 154 |
| PA\_VVA\_T10\_FREQ7 | 156 |
| PA\_VVA\_T10\_FREQ8 | 158 |
| PA\_VVA\_T11\_FREQ1 | 160 | T=9 ÷ 12 |
| PA\_VVA\_T11\_FREQ2 | 162 |
| PA\_VVA\_T11\_FREQ3 | 164 |
| PA\_VVA\_T11\_FREQ4 | 166 |
| PA\_VVA\_T11\_FREQ5 | 168 |
| PA\_VVA\_T11\_FREQ6 | 170 |
| PA\_VVA\_T11\_FREQ7 | 172 |
| PA\_VVA\_T11\_FREQ8 | 174 |
| PA\_VVA\_T12\_FREQ1 | 176 | T=13 ÷ 16 |
| PA\_VVA\_T12\_FREQ2 | 178 |
| PA\_VVA\_T12\_FREQ3 | 180 |
| PA\_VVA\_T12\_FREQ4 | 182 |
| PA\_VVA\_T12\_FREQ5 | 184 |
| PA\_VVA\_T12\_FREQ6 | 186 |
| PA\_VVA\_T12\_FREQ7 | 188 |
| PA\_VVA\_T12\_FREQ8 | 190 |
| PA\_VVA\_T13\_FREQ1 | 192 | T=17 ÷ 20 |
| PA\_VVA\_T13\_FREQ2 | 194 |
| PA\_VVA\_T13\_FREQ3 | 196 |
| PA\_VVA\_T13\_FREQ4 | 198 |
| PA\_VVA\_T13\_FREQ5 | 200 |
| PA\_VVA\_T13\_FREQ6 | 202 |
| PA\_VVA\_T13\_FREQ7 | 204 |
| PA\_VVA\_T13\_FREQ8 | 206 |
| PA\_VVA\_T14\_FREQ1 | 208 | T=21 ÷ 24 |
| PA\_VVA\_T14\_FREQ2 | 210 |
| PA\_VVA\_T14\_FREQ3 | 212 |
| PA\_VVA\_T14\_FREQ4 | 214 |
| PA\_VVA\_T14\_FREQ5 | 216 |
| PA\_VVA\_T14\_FREQ6 | 218 |
| PA\_VVA\_T14\_FREQ7 | 220 |
| PA\_VVA\_T14\_FREQ8 | 222 |
| PA\_VVA\_T15\_FREQ1 | 224 | T=25 ÷ 28 |
| PA\_VVA\_T15\_FREQ2 | 226 |
| PA\_VVA\_T15\_FREQ3 | 228 |
| PA\_VVA\_T15\_FREQ4 | 230 |
| PA\_VVA\_T15\_FREQ5 | 232 |
| PA\_VVA\_T15\_FREQ6 | 234 |
| PA\_VVA\_T15\_FREQ7 | 236 |
| PA\_VVA\_T15\_FREQ8 | 238 |
| PA\_VVA\_T16\_FREQ1 | 240 | T=29 ÷ 32 |
| PA\_VVA\_T16\_FREQ2 | 242 |
| PA\_VVA\_T16\_FREQ3 | 244 |
| PA\_VVA\_T16\_FREQ4 | 246 |
| PA\_VVA\_T16\_FREQ5 | 248 |
| PA\_VVA\_T16\_FREQ6 | 250 |
| PA\_VVA\_T16\_FREQ7 | 252 |
| PA\_VVA\_T16\_FREQ8 | 254 |
| Spare | 256-263 |  |

Page 2: (VVA control for 46dBm over frequency and temperature):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_T17\_FREQ1 | 0 | T=33 ÷ 36 |
| PA\_VVA\_T17\_FREQ2 | 2 |
| PA\_VVA\_T17\_FREQ3 | 4 |
| PA\_VVA\_T17\_FREQ4 | 6 |
| PA\_VVA\_T17\_FREQ5 | 8 |
| PA\_VVA\_T17\_FREQ6 | 10 |
| PA\_VVA\_T17\_FREQ5 | 12 |
| PA\_VVA\_T17\_FREQ6 | 14 |
| PA\_VVA\_T18\_FREQ1 | 16 | T=37 ÷ 40 |
| PA\_VVA\_T18\_FREQ2 | 18 |
| PA\_VVA\_T18\_FREQ3 | 20 |
| PA\_VVA\_T18\_FREQ4 | 22 |
| PA\_VVA\_T18\_FREQ5 | 24 |
| PA\_VVA\_T18\_FREQ6 | 26 |
| PA\_VVA\_T18\_FREQ7 | 28 |
| PA\_VVA\_T18\_FREQ8 | 30 |
| PA\_VVA\_T19\_FREQ1 | 32 | T=41 ÷ 44 |
| PA\_VVA\_T19\_FREQ2 | 34 |
| PA\_VVA\_T19\_FREQ3 | 36 |
| PA\_VVA\_T19\_FREQ4 | 38 |
| PA\_VVA\_T19\_FREQ5 | 40 |
| PA\_VVA\_T19\_FREQ6 | 42 |
| PA\_VVA\_T19\_FREQ7 | 44 |
| PA\_VVA\_T19\_FREQ8 | 46 |
| PA\_VVA\_T20\_FREQ1 | 48 | T=45 ÷ 48 |
| PA\_VVA\_T20\_FREQ2 | 50 |
| PA\_VVA\_T20\_FREQ3 | 52 |
| PA\_VVA\_T20\_FREQ4 | 54 |
| PA\_VVA\_T20\_FREQ5 | 56 |
| PA\_VVA\_T20\_FREQ6 | 58 |
| PA\_VVA\_T20\_FREQ7 | 60 |
| PA\_VVA\_T20\_FREQ8 | 62 |
| PA\_VVA\_T21\_FREQ1 | 64 | T=49 ÷ 52 |
| PA\_VVA\_T21\_FREQ2 | 66 |
| PA\_VVA\_T21\_FREQ3 | 68 |
| PA\_VVA\_T21\_FREQ4 | 70 |
| PA\_VVA\_T21\_FREQ5 | 72 |
| PA\_VVA\_T21\_FREQ6 | 74 |
| PA\_VVA\_T21\_FREQ7 | 76 |
| PA\_VVA\_T21\_FREQ8 | 78 |
| PA\_VVA\_T22\_FREQ1 | 80 | T=53 ÷ 56 |
| PA\_VVA\_T22\_FREQ2 | 82 |
| PA\_VVA\_T22\_FREQ3 | 84 |
| PA\_VVA\_T22\_FREQ4 | 86 |
| PA\_VVA\_T22\_FREQ5 | 88 |
| PA\_VVA\_T22\_FREQ6 | 90 |
| PA\_VVA\_T22\_FREQ7 | 92 |
| PA\_VVA\_T22\_FREQ8 | 94 |
| PA\_VVA\_T23\_FREQ1 | 96 | T=57 ÷ 60 |
| PA\_VVA\_T23\_FREQ2 | 98 |
| PA\_VVA\_T23\_FREQ3 | 100 |
| PA\_VVA\_T23\_FREQ4 | 102 |
| PA\_VVA\_T23\_FREQ5 | 104 |
| PA\_VVA\_T23\_FREQ6 | 106 |
| PA\_VVA\_T23\_FREQ7 | 108 |
| PA\_VVA\_T23\_FREQ8 | 110 |
| PA\_VVA\_T24\_FREQ1 | 112 | T=61 ÷ 64 |
| PA\_VVA\_T24\_FREQ2 | 114 |
| PA\_VVA\_T24\_FREQ3 | 116 |
| PA\_VVA\_T24\_FREQ4 | 118 |
| PA\_VVA\_T24\_FREQ5 | 120 |
| PA\_VVA\_T24\_FREQ6 | 122 |
| PA\_VVA\_T24\_FREQ7 | 124 |
| PA\_VVA\_T24\_FREQ8 | 126 |
| PA\_VVA\_T25\_FREQ1 | 128 | T=65 ÷ 68 |
| PA\_VVA\_T25\_FREQ2 | 130 |
| PA\_VVA\_T25\_FREQ3 | 132 |
| PA\_VVA\_T25\_FREQ4 | 134 |
| PA\_VVA\_T25\_FREQ5 | 136 |
| PA\_VVA\_T25\_FREQ6 | 138 |
| PA\_VVA\_T25\_FREQ7 | 140 |
| PA\_VVA\_T25\_FREQ8 | 142 |
| PA\_VVA\_T26\_FREQ1 | 144 | T=69 ÷ 72 |
| PA\_VVA\_T26\_FREQ2 | 146 |
| PA\_VVA\_T26\_FREQ3 | 148 |
| PA\_VVA\_T26\_FREQ4 | 150 |
| PA\_VVA\_T26\_FREQ5 | 152 |
| PA\_VVA\_T26\_FREQ6 | 154 |
| PA\_VVA\_T26\_FREQ7 | 156 |
| PA\_VVA\_T26\_FREQ8 | 158 |
| PA\_VVA\_T27\_FREQ1 | 160 | T=73 ÷ 76 |
| PA\_VVA\_T27\_FREQ2 | 162 |
| PA\_VVA\_T27\_FREQ3 | 164 |
| PA\_VVA\_T27\_FREQ4 | 166 |
| PA\_VVA\_T27\_FREQ5 | 168 |
| PA\_VVA\_T27\_FREQ6 | 170 |
| PA\_VVA\_T27\_FREQ7 | 172 |
| PA\_VVA\_T27\_FREQ8 | 174 |
| PA\_VVA\_T28\_FREQ1 | 176 | T=77 ÷ 80 |
| PA\_VVA\_T28\_FREQ2 | 178 |
| PA\_VVA\_T28\_FREQ3 | 180 |
| PA\_VVA\_T28\_FREQ4 | 182 |
| PA\_VVA\_T28\_FREQ5 | 184 |
| PA\_VVA\_T28\_FREQ6 | 186 |
| PA\_VVA\_T28\_FREQ7 | 188 |
| PA\_VVA\_T28\_FREQ8 | 190 |
| PA\_VVA\_T29\_FREQ1 | 192 | T=81 ÷ 84 |
| PA\_VVA\_T29\_FREQ2 | 194 |
| PA\_VVA\_T29\_FREQ3 | 196 |
| PA\_VVA\_T29\_FREQ4 | 198 |
| PA\_VVA\_T29\_FREQ5 | 200 |
| PA\_VVA\_T29\_FREQ6 | 202 |
| PA\_VVA\_T29\_FREQ7 | 204 |
| PA\_VVA\_T29\_FREQ8 | 206 |
| PA\_VVA\_T30\_FREQ1 | 208 | T=85 ÷ 88 |
| PA\_VVA\_T30\_FREQ2 | 210 |
| PA\_VVA\_T30\_FREQ3 | 212 |
| PA\_VVA\_T30\_FREQ4 | 214 |
| PA\_VVA\_T30\_FREQ5 | 216 |
| PA\_VVA\_T30\_FREQ6 | 218 |
| PA\_VVA\_T30\_FREQ7 | 220 |
| PA\_VVA\_T30\_FREQ8 | 222 |
| PA\_VVA\_T31\_FREQ1 | 224 | T=89 ÷ 92 |
| PA\_VVA\_T31\_FREQ2 | 226 |
| PA\_VVA\_T31\_FREQ3 | 228 |
| PA\_VVA\_T31\_FREQ4 | 230 |
| PA\_VVA\_T31\_FREQ5 | 232 |
| PA\_VVA\_T31\_FREQ6 | 234 |
| PA\_VVA\_T31\_FREQ7 | 236 |
| PA\_VVA\_T31\_FREQ8 | 238 |
| PA\_VVA\_T32\_FREQ1 | 240 | T=93 ÷ 96 |
| PA\_VVA\_T32\_FREQ2 | 242 |
| PA\_VVA\_T32\_FREQ3 | 244 |
| PA\_VVA\_T32\_FREQ4 | 246 |
| PA\_VVA\_T32\_FREQ5 | 248 |
| PA\_VVA\_T32\_FREQ6 | 250 |
| PA\_VVA\_T32\_FREQ7 | 252 |
| PA\_VVA\_T32\_FREQ8 | 254 |
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Page 3: (VVA control for 40dBm CW DC4 ON over frequency and temperature):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_T1\_FREQ1 | 0 | T=-31 ÷ -28 |
| PA\_VVA\_T1\_FREQ2 | 2 |
| PA\_VVA\_T1\_FREQ3 | 4 |
| PA\_VVA\_T1\_FREQ4 | 6 |
| PA\_VVA\_T1\_FREQ5 | 8 |
| PA\_VVA\_T1\_FREQ6 | 10 |
| PA\_VVA\_T1\_FREQ7 | 12 |
| PA\_VVA\_T1\_FREQ8 | 14 |
| PA\_VVA\_T2\_FREQ1 | 16 | T=-27 ÷ -24 |
| PA\_VVA\_T2\_FREQ2 | 18 |
| PA\_VVA\_T2\_FREQ3 | 20 |
| PA\_VVA\_T2\_FREQ4 | 22 |
| PA\_VVA\_T2\_FREQ5 | 24 |
| PA\_VVA\_T2\_FREQ6 | 26 |
| PA\_VVA\_T2\_FREQ7 | 28 |
| PA\_VVA\_T2\_FREQ8 | 30 |
| PA\_VVA\_T3\_FREQ1 | 32 | T=-23 ÷ -20 |
| PA\_VVA\_T3\_FREQ2 | 34 |
| PA\_VVA\_T3\_FREQ3 | 36 |
| PA\_VVA\_T3\_FREQ4 | 38 |
| PA\_VVA\_T3\_FREQ5 | 40 |
| PA\_VVA\_T3\_FREQ6 | 42 |
| PA\_VVA\_T3\_FREQ7 | 44 |
| PA\_VVA\_T3\_FREQ8 | 46 |
| PA\_VVA\_T4\_FREQ1 | 48 | T=-19 ÷ -16 |
| PA\_VVA\_T4\_FREQ2 | 50 |
| PA\_VVA\_T4\_FREQ3 | 52 |
| PA\_VVA\_T4\_FREQ4 | 54 |
| PA\_VVA\_T4\_FREQ5 | 56 |
| PA\_VVA\_T4\_FREQ6 | 58 |
| PA\_VVA\_T4\_FREQ7 | 60 |
| PA\_VVA\_T4\_FREQ8 | 62 |
| PA\_VVA\_T5\_FREQ1 | 64 | T=-15 ÷ -12 |
| PA\_VVA\_T5\_FREQ2 | 66 |
| PA\_VVA\_T5\_FREQ3 | 68 |
| PA\_VVA\_T5\_FREQ4 | 70 |
| PA\_VVA\_T5\_FREQ5 | 72 |
| PA\_VVA\_T5\_FREQ6 | 74 |
| PA\_VVA\_T5\_FREQ7 | 76 |
| PA\_VVA\_T5\_FREQ8 | 78 |
| PA\_VVA\_T6\_FREQ1 | 80 | T=-11 ÷ -8 |
| PA\_VVA\_T6\_FREQ2 | 82 |
| PA\_VVA\_T6\_FREQ3 | 84 |
| PA\_VVA\_T6\_FREQ4 | 86 |
| PA\_VVA\_T6\_FREQ5 | 88 |
| PA\_VVA\_T6\_FREQ6 | 90 |
| PA\_VVA\_T6\_FREQ7 | 92 |
| PA\_VVA\_T6\_FREQ8 | 94 |
| PA\_VVA\_T7\_FREQ1 | 96 | T=-7 ÷ -4 |
| PA\_VVA\_T7\_FREQ2 | 98 |
| PA\_VVA\_T7\_FREQ3 | 100 |
| PA\_VVA\_T7\_FREQ4 | 102 |
| PA\_VVA\_T7\_FREQ5 | 104 |
| PA\_VVA\_T7\_FREQ6 | 106 |
| PA\_VVA\_T7\_FREQ7 | 108 |
| PA\_VVA\_T7\_FREQ8 | 110 |
| PA\_VVA\_T8\_FREQ1 | 112 | T=-3 ÷ 0 |
| PA\_VVA\_T8\_FREQ2 | 114 |
| PA\_VVA\_T8\_FREQ3 | 116 |
| PA\_VVA\_T8\_FREQ4 | 118 |
| PA\_VVA\_T8\_FREQ5 | 120 |
| PA\_VVA\_T8\_FREQ6 | 122 |
| PA\_VVA\_T8\_FREQ7 | 124 |
| PA\_VVA\_T8\_FREQ8 | 126 |
| PA\_VVA\_T9\_FREQ1 | 128 | T=1 ÷ 4 |
| PA\_VVA\_T9\_FREQ2 | 130 |
| PA\_VVA\_T9\_FREQ3 | 132 |
| PA\_VVA\_T9\_FREQ4 | 134 |
| PA\_VVA\_T9\_FREQ5 | 136 |
| PA\_VVA\_T9\_FREQ6 | 138 |
| PA\_VVA\_T9\_FREQ7 | 140 |
| PA\_VVA\_T9\_FREQ8 | 142 |
| PA\_VVA\_T10\_FREQ1 | 144 | T=5 ÷ 8 |
| PA\_VVA\_T10\_FREQ2 | 146 |
| PA\_VVA\_T10\_FREQ3 | 148 |
| PA\_VVA\_T10\_FREQ4 | 150 |
| PA\_VVA\_T10\_FREQ5 | 152 |
| PA\_VVA\_T10\_FREQ6 | 154 |
| PA\_VVA\_T10\_FREQ7 | 156 |
| PA\_VVA\_T10\_FREQ8 | 158 |
| PA\_VVA\_T11\_FREQ1 | 160 | T=9 ÷ 12 |
| PA\_VVA\_T11\_FREQ2 | 162 |
| PA\_VVA\_T11\_FREQ3 | 164 |
| PA\_VVA\_T11\_FREQ4 | 166 |
| PA\_VVA\_T11\_FREQ5 | 168 |
| PA\_VVA\_T11\_FREQ6 | 170 |
| PA\_VVA\_T11\_FREQ7 | 172 |
| PA\_VVA\_T11\_FREQ8 | 174 |
| PA\_VVA\_T12\_FREQ1 | 176 | T=13 ÷ 16 |
| PA\_VVA\_T12\_FREQ2 | 178 |
| PA\_VVA\_T12\_FREQ3 | 180 |
| PA\_VVA\_T12\_FREQ4 | 182 |
| PA\_VVA\_T12\_FREQ5 | 184 |
| PA\_VVA\_T12\_FREQ6 | 186 |
| PA\_VVA\_T12\_FREQ7 | 188 |
| PA\_VVA\_T12\_FREQ8 | 190 |
| PA\_VVA\_T13\_FREQ1 | 192 | T=17 ÷ 20 |
| PA\_VVA\_T13\_FREQ2 | 194 |
| PA\_VVA\_T13\_FREQ3 | 196 |
| PA\_VVA\_T13\_FREQ4 | 198 |
| PA\_VVA\_T13\_FREQ5 | 200 |
| PA\_VVA\_T13\_FREQ6 | 202 |
| PA\_VVA\_T13\_FREQ7 | 204 |
| PA\_VVA\_T13\_FREQ8 | 206 |
| PA\_VVA\_T14\_FREQ1 | 208 | T=21 ÷ 24 |
| PA\_VVA\_T14\_FREQ2 | 210 |
| PA\_VVA\_T14\_FREQ3 | 212 |
| PA\_VVA\_T14\_FREQ4 | 214 |
| PA\_VVA\_T14\_FREQ5 | 216 |
| PA\_VVA\_T14\_FREQ6 | 218 |
| PA\_VVA\_T14\_FREQ7 | 220 |
| PA\_VVA\_T14\_FREQ8 | 222 |
| PA\_VVA\_T15\_FREQ1 | 224 | T=25 ÷ 28 |
| PA\_VVA\_T15\_FREQ2 | 226 |
| PA\_VVA\_T15\_FREQ3 | 228 |
| PA\_VVA\_T15\_FREQ4 | 230 |
| PA\_VVA\_T15\_FREQ5 | 232 |
| PA\_VVA\_T15\_FREQ6 | 234 |
| PA\_VVA\_T15\_FREQ7 | 236 |
| PA\_VVA\_T15\_FREQ8 | 238 |
| PA\_VVA\_T16\_FREQ1 | 240 | T=29 ÷ 32 |
| PA\_VVA\_T16\_FREQ2 | 242 |
| PA\_VVA\_T16\_FREQ3 | 244 |
| PA\_VVA\_T16\_FREQ4 | 246 |
| PA\_VVA\_T16\_FREQ5 | 248 |
| PA\_VVA\_T16\_FREQ6 | 250 |
| PA\_VVA\_T16\_FREQ7 | 252 |
| PA\_VVA\_T16\_FREQ8 | 254 |
| Spare | 256-263 |  |

Page 4: (VVA control for 40dBm CW DC4 ON over frequency and temperature):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_T17\_FREQ1 | 0 | T=33 ÷ 36 |
| PA\_VVA\_T17\_FREQ2 | 2 |
| PA\_VVA\_T17\_FREQ3 | 4 |
| PA\_VVA\_T17\_FREQ4 | 6 |
| PA\_VVA\_T17\_FREQ5 | 8 |
| PA\_VVA\_T17\_FREQ6 | 10 |
| PA\_VVA\_T17\_FREQ5 | 12 |
| PA\_VVA\_T17\_FREQ6 | 14 |
| PA\_VVA\_T18\_FREQ1 | 16 | T=37 ÷ 40 |
| PA\_VVA\_T18\_FREQ2 | 18 |
| PA\_VVA\_T18\_FREQ3 | 20 |
| PA\_VVA\_T18\_FREQ4 | 22 |
| PA\_VVA\_T18\_FREQ5 | 24 |
| PA\_VVA\_T18\_FREQ6 | 26 |
| PA\_VVA\_T18\_FREQ7 | 28 |
| PA\_VVA\_T18\_FREQ8 | 30 |
| PA\_VVA\_T19\_FREQ1 | 32 | T=41 ÷ 44 |
| PA\_VVA\_T19\_FREQ2 | 34 |
| PA\_VVA\_T19\_FREQ3 | 36 |
| PA\_VVA\_T19\_FREQ4 | 38 |
| PA\_VVA\_T19\_FREQ5 | 40 |
| PA\_VVA\_T19\_FREQ6 | 42 |
| PA\_VVA\_T19\_FREQ7 | 44 |
| PA\_VVA\_T19\_FREQ8 | 46 |
| PA\_VVA\_T20\_FREQ1 | 48 | T=45 ÷ 48 |
| PA\_VVA\_T20\_FREQ2 | 50 |
| PA\_VVA\_T20\_FREQ3 | 52 |
| PA\_VVA\_T20\_FREQ4 | 54 |
| PA\_VVA\_T20\_FREQ5 | 56 |
| PA\_VVA\_T20\_FREQ6 | 58 |
| PA\_VVA\_T20\_FREQ7 | 60 |
| PA\_VVA\_T20\_FREQ8 | 62 |
| PA\_VVA\_T21\_FREQ1 | 64 | T=49 ÷ 52 |
| PA\_VVA\_T21\_FREQ2 | 66 |
| PA\_VVA\_T21\_FREQ3 | 68 |
| PA\_VVA\_T21\_FREQ4 | 70 |
| PA\_VVA\_T21\_FREQ5 | 72 |
| PA\_VVA\_T21\_FREQ6 | 74 |
| PA\_VVA\_T21\_FREQ7 | 76 |
| PA\_VVA\_T21\_FREQ8 | 78 |

|  |  |  |
| --- | --- | --- |
| PA\_VVA\_T22\_FREQ1 | 80 | T=53 ÷ 56 |
| PA\_VVA\_T22\_FREQ2 | 82 |
| PA\_VVA\_T22\_FREQ3 | 84 |
| PA\_VVA\_T22\_FREQ4 | 86 |
| PA\_VVA\_T22\_FREQ5 | 88 |
| PA\_VVA\_T22\_FREQ6 | 90 |
| PA\_VVA\_T22\_FREQ7 | 92 |
| PA\_VVA\_T22\_FREQ8 | 94 |
| PA\_VVA\_T23\_FREQ1 | 96 | T=57 ÷ 60 |
| PA\_VVA\_T23\_FREQ2 | 98 |
| PA\_VVA\_T23\_FREQ3 | 100 |
| PA\_VVA\_T23\_FREQ4 | 102 |
| PA\_VVA\_T23\_FREQ5 | 104 |
| PA\_VVA\_T23\_FREQ6 | 106 |
| PA\_VVA\_T23\_FREQ7 | 108 |
| PA\_VVA\_T23\_FREQ8 | 110 |
| PA\_VVA\_T24\_FREQ1 | 112 | T=61 ÷ 64 |
| PA\_VVA\_T24\_FREQ2 | 114 |
| PA\_VVA\_T24\_FREQ3 | 116 |
| PA\_VVA\_T24\_FREQ4 | 118 |
| PA\_VVA\_T24\_FREQ5 | 120 |
| PA\_VVA\_T24\_FREQ6 | 122 |
| PA\_VVA\_T24\_FREQ7 | 124 |
| PA\_VVA\_T24\_FREQ8 | 126 |
| PA\_VVA\_T25\_FREQ1 | 128 | T=65 ÷ 68 |
| PA\_VVA\_T25\_FREQ2 | 130 |
| PA\_VVA\_T25\_FREQ3 | 132 |
| PA\_VVA\_T25\_FREQ4 | 134 |
| PA\_VVA\_T25\_FREQ5 | 136 |
| PA\_VVA\_T25\_FREQ6 | 138 |
| PA\_VVA\_T25\_FREQ7 | 140 |
| PA\_VVA\_T25\_FREQ8 | 142 |
| PA\_VVA\_T26\_FREQ1 | 144 | T=69 ÷ 72 |
| PA\_VVA\_T26\_FREQ2 | 146 |
| PA\_VVA\_T26\_FREQ3 | 148 |
| PA\_VVA\_T26\_FREQ4 | 150 |
| PA\_VVA\_T26\_FREQ5 | 152 |
| PA\_VVA\_T26\_FREQ6 | 154 |
| PA\_VVA\_T26\_FREQ7 | 156 |
| PA\_VVA\_T26\_FREQ8 | 158 |

|  |  |  |
| --- | --- | --- |
| PA\_VVA\_T27\_FREQ1 | 160 | T=73 ÷ 76 |
| PA\_VVA\_T27\_FREQ2 | 162 |
| PA\_VVA\_T27\_FREQ3 | 164 |
| PA\_VVA\_T27\_FREQ4 | 166 |
| PA\_VVA\_T27\_FREQ5 | 168 |
| PA\_VVA\_T27\_FREQ6 | 170 |
| PA\_VVA\_T27\_FREQ7 | 172 |
| PA\_VVA\_T27\_FREQ8 | 174 |
| PA\_VVA\_T28\_FREQ1 | 176 | T=77 ÷ 80 |
| PA\_VVA\_T28\_FREQ2 | 178 |
| PA\_VVA\_T28\_FREQ3 | 180 |
| PA\_VVA\_T28\_FREQ4 | 182 |
| PA\_VVA\_T28\_FREQ5 | 184 |
| PA\_VVA\_T28\_FREQ6 | 186 |
| PA\_VVA\_T28\_FREQ7 | 188 |
| PA\_VVA\_T28\_FREQ8 | 190 |
| PA\_VVA\_T29\_FREQ1 | 192 | T=81 ÷ 84 |
| PA\_VVA\_T29\_FREQ2 | 194 |
| PA\_VVA\_T29\_FREQ3 | 196 |
| PA\_VVA\_T29\_FREQ4 | 198 |
| PA\_VVA\_T29\_FREQ5 | 200 |
| PA\_VVA\_T29\_FREQ6 | 202 |
| PA\_VVA\_T29\_FREQ7 | 204 |
| PA\_VVA\_T29\_FREQ8 | 206 |
| PA\_VVA\_T30\_FREQ1 | 208 | T=85 ÷ 88 |
| PA\_VVA\_T30\_FREQ2 | 210 |
| PA\_VVA\_T30\_FREQ3 | 212 |
| PA\_VVA\_T30\_FREQ4 | 214 |
| PA\_VVA\_T30\_FREQ5 | 216 |
| PA\_VVA\_T30\_FREQ6 | 218 |
| PA\_VVA\_T30\_FREQ7 | 220 |
| PA\_VVA\_T30\_FREQ8 | 222 |
| PA\_VVA\_T31\_FREQ1 | 224 | T=89 ÷ 92 |
| PA\_VVA\_T31\_FREQ2 | 226 |
| PA\_VVA\_T31\_FREQ3 | 228 |
| PA\_VVA\_T31\_FREQ4 | 230 |
| PA\_VVA\_T31\_FREQ5 | 232 |
| PA\_VVA\_T31\_FREQ6 | 234 |
| PA\_VVA\_T31\_FREQ7 | 236 |
| PA\_VVA\_T31\_FREQ8 | 238 |

|  |  |  |
| --- | --- | --- |
| PA\_VVA\_T32\_FREQ1 | 240 | T=93 ÷ 96 |
| PA\_VVA\_T32\_FREQ2 | 242 |
| PA\_VVA\_T32\_FREQ3 | 244 |
| PA\_VVA\_T32\_FREQ4 | 246 |
| PA\_VVA\_T32\_FREQ5 | 248 |
| PA\_VVA\_T32\_FREQ6 | 250 |
| PA\_VVA\_T32\_FREQ7 | 252 |
| PA\_VVA\_T32\_FREQ8 | 254 |
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Page 5 (Vdd- 28V control for DC4 OFF mode):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Vdd\_DAC\_T1 | 0 | T=-31 ÷ -28 |
| Vdd \_DAC\_T2 | 2 | T=-27 ÷ -24 |
| Vdd \_DAC\_T3 | 4 | T=-23 ÷ -20 |
| Vdd \_DAC\_T4 | 6 | T=-19 ÷ -16 |
| Vdd \_DAC\_T5 | 8 | T=-15 ÷ -12 |
| Vdd \_DAC\_T6 | 10 | T=-11 ÷ -8 |
| Vdd \_DAC\_T7 | 12 | T=-7 ÷ -4 |
| Vdd \_DAC\_T8 | 14 | T=-3 ÷ 0 |
| Vdd \_DAC\_T9 | 16 | T=1 ÷ 4 |
| Vdd \_DAC\_T10 | 18 | T=5 ÷ 8 |
| Vdd \_DAC\_T11 | 20 | T=9 ÷ 12 |
| Vdd \_DAC\_T12 | 22 | T=13 ÷ 16 |
| Vdd \_DAC\_T13 | 24 | T=17 ÷ 20 |
| Vdd \_DAC\_T14 | 26 | T=21 ÷ 24 |
| Vdd \_DAC\_T15 | 28 | T=25 ÷ 28 |
| Vdd \_DAC\_T16 | 30 | T=29 ÷ 32 |
| Vdd \_DAC\_T17 | 32 | T=33 ÷ 36 |
| Vdd \_DAC\_T18 | 34 | T=37 ÷ 40 |
| Vdd \_DAC\_T19 | 36 | T=41 ÷ 44 |
| Vdd \_DAC\_T20 | 38 | T=45 ÷ 48 |
| Vdd \_DAC\_T21 | 40 | T=49 ÷ 52 |
| Vdd \_DAC\_T22 | 42 | T=53 ÷ 56 |
| Vdd \_DAC\_T23 | 44 | T=57 ÷ 60 |
| Vdd \_DAC\_T24 | 46 | T=61 ÷ 64 |
| Vdd \_DAC\_T25 | 48 | T=65 ÷ 68 |
| Vdd \_DAC\_T26 | 50 | T=69 ÷ 72 |
| Vdd \_DAC\_T27 | 52 | T=73 ÷ 76 |
| Vdd \_DAC\_T28 | 54 | T=77 ÷ 80 |
| Vdd \_DAC\_T29 | 56 | T=81 ÷ 84 |
| Vdd \_DAC\_T30 | 58 | T=85 ÷ 88 |
| Vdd \_DAC\_T31 | 60 | T=89 ÷ 92 |
| Vdd \_DAC\_T32 | 62 | T=93 ÷ 96 |

Page 5 (Vdd- 28V control for DC4 ON mode):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Vdd\_ DC4\_DAC\_T1 | 64 | T=-31 ÷ -28 |
| Vdd\_ DC4\_DAC\_T2 | 66 | T=-27 ÷ -24 |
| Vdd\_ DC4\_DAC\_T3 | 68 | T=-23 ÷ -20 |
| Vdd\_ DC4\_DAC\_T4 | 70 | T=-19 ÷ -16 |
| Vdd\_ DC4\_DAC\_T5 | 72 | T=-15 ÷ -12 |
| Vdd\_ DC4\_DAC\_T6 | 74 | T=-11 ÷ -8 |
| Vdd\_ DC4\_DAC\_T7 | 76 | T=-7 ÷ -4 |
| Vdd\_ DC4\_DAC\_T8 | 78 | T=-3 ÷ 0 |
| Vdd\_ DC4\_DAC\_T9 | 80 | T=1 ÷ 4 |
| Vdd\_ DC4\_DAC\_T10 | 82 | T=5 ÷ 8 |
| Vdd\_ DC4\_DAC\_T11 | 84 | T=9 ÷ 12 |
| Vdd\_ DC4\_DAC\_T12 | 86 | T=13 ÷ 16 |
| Vdd\_ DC4\_DAC\_T13 | 88 | T=17 ÷ 20 |
| Vdd\_ DC4\_DAC\_T14 | 90 | T=21 ÷ 24 |
| Vdd\_ DC4\_DAC\_T15 | 92 | T=25 ÷ 28 |
| Vdd\_ DC4\_DAC\_T16 | 94 | T=29 ÷ 32 |
| Vdd\_ DC4\_DAC\_T17 | 96 | T=33 ÷ 36 |
| Vdd\_ DC4\_DAC\_T18 | 98 | T=37 ÷ 40 |
| Vdd\_ DC4\_DAC\_T19 | 100 | T=41 ÷ 44 |
| Vdd\_ DC4\_DAC\_T20 | 102 | T=45 ÷ 48 |
| Vdd\_ DC4\_DAC\_T21 | 104 | T=49 ÷ 52 |
| Vdd\_ DC4\_DAC\_T22 | 106 | T=53 ÷ 56 |
| Vdd\_ DC4\_DAC\_T23 | 108 | T=57 ÷ 60 |
| Vdd\_ DC4\_DAC\_T24 | 110 | T=61 ÷ 64 |
| Vdd\_ DC4\_DAC\_T25 | 112 | T=65 ÷ 68 |
| Vdd\_ DC4\_DAC\_T26 | 114 | T=69 ÷ 72 |
| Vdd\_ DC4\_DAC\_T27 | 116 | T=73 ÷ 76 |
| Vdd\_ DC4\_DAC\_T28 | 118 | T=77 ÷ 80 |
| Vdd\_ DC4\_DAC\_T29 | 120 | T=81 ÷ 84 |
| Vdd\_ DC4\_DAC\_T30 | 122 | T=85 ÷ 88 |
| Vdd\_ DC4\_DAC\_T31 | 124 | T=89 ÷ 92 |
| Vdd\_ DC4\_DAC\_T32 | 126 | T=93 ÷ 96 |

Page 5 (Vgg -2V control for DC4 OFF mode):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Vgg\_DAC\_T1 | 128 | T=-31 ÷ -28 |
| Vgg\_DAC\_T2 | 130 | T=-27 ÷ -24 |
| Vgg\_DAC\_T3 | 132 | T=-23 ÷ -20 |
| Vgg\_DAC\_T4 | 134 | T=-19 ÷ -16 |
| Vgg\_DAC\_T5 | 136 | T=-15 ÷ -12 |
| Vgg\_DAC\_T6 | 138 | T=-11 ÷ -8 |
| Vgg\_DAC\_T7 | 140 | T=-7 ÷ -4 |
| Vgg\_DAC\_T8 | 142 | T=-3 ÷ 0 |
| Vgg\_DAC\_T9 | 144 | T=1 ÷ 4 |
| Vgg\_DAC\_T10 | 146 | T=5 ÷ 8 |
| Vgg\_DAC\_T11 | 148 | T=9 ÷ 12 |
| Vgg\_DAC\_T12 | 150 | T=13 ÷ 16 |
| Vgg\_DAC\_T13 | 152 | T=17 ÷ 20 |
| Vgg\_DAC\_T14 | 154 | T=21 ÷ 24 |
| Vgg\_DAC\_T15 | 156 | T=25 ÷ 28 |
| Vgg\_DAC\_T16 | 158 | T=29 ÷ 32 |
| Vgg\_DAC\_T17 | 160 | T=33 ÷ 36 |
| Vgg\_DAC\_T18 | 162 | T=37 ÷ 40 |
| Vgg\_DAC\_T19 | 164 | T=41 ÷ 44 |
| Vgg\_DAC\_T20 | 166 | T=45 ÷ 48 |
| Vgg\_DAC\_T21 | 168 | T=49 ÷ 52 |
| Vgg\_DAC\_T22 | 170 | T=53 ÷ 56 |
| Vgg\_DAC\_T23 | 172 | T=57 ÷ 60 |
| Vgg\_DAC\_T24 | 174 | T=61 ÷ 64 |
| Vgg\_DAC\_T25 | 176 | T=65 ÷ 68 |
| Vgg\_DAC\_T26 | 178 | T=69 ÷ 72 |
| Vgg\_DAC\_T27 | 180 | T=73 ÷ 76 |
| Vgg\_DAC\_T28 | 182 | T=77 ÷ 80 |
| Vgg\_DAC\_T29 | 184 | T=81 ÷ 84 |
| Vgg\_DAC\_T30 | 186 | T=85 ÷ 88 |
| Vgg\_DAC\_T31 | 188 | T=89 ÷ 92 |
| Vgg\_DAC\_T32 | 190 | T=93 ÷ 96 |

Page 5 (Vgg -2V control for DC4 ON mode):

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Vgg\_ DC4\_DAC\_T1 | 192 | T=-31 ÷ -28 |
| Vgg\_ DC4\_DAC\_T2 | 194 | T=-27 ÷ -24 |
| Vgg\_ DC4\_DAC\_T3 | 196 | T=-23 ÷ -20 |
| Vgg\_ DC4\_DAC\_T4 | 198 | T=-19 ÷ -16 |
| Vgg\_ DC4\_DAC\_T5 | 200 | T=-15 ÷ -12 |
| Vgg\_ DC4\_DAC\_T6 | 202 | T=-11 ÷ -8 |
| Vgg\_ DC4\_DAC\_T7 | 204 | T=-7 ÷ -4 |
| Vgg\_ DC4\_DAC\_T8 | 206 | T=-3 ÷ 0 |
| Vgg\_ DC4\_DAC\_T9 | 208 | T=1 ÷ 4 |
| Vgg\_ DC4\_DAC\_T10 | 210 | T=5 ÷ 8 |
| Vgg\_ DC4\_DAC\_T11 | 212 | T=9 ÷ 12 |
| Vgg\_ DC4\_DAC\_T12 | 214 | T=13 ÷ 16 |
| Vgg\_ DC4\_DAC\_T13 | 216 | T=17 ÷ 20 |
| Vgg\_ DC4\_DAC\_T14 | 218 | T=21 ÷ 24 |
| Vgg\_ DC4\_DAC\_T15 | 220 | T=25 ÷ 28 |
| Vgg\_ DC4\_DAC\_T16 | 222 | T=29 ÷ 32 |
| Vgg\_ DC4\_DAC\_T17 | 224 | T=33 ÷ 36 |
| Vgg\_ DC4\_DAC\_T18 | 226 | T=37 ÷ 40 |
| Vgg\_ DC4\_DAC\_T19 | 228 | T=41 ÷ 44 |
| Vgg\_ DC4\_DAC\_T20 | 230 | T=45 ÷ 48 |
| Vgg\_ DC4\_DAC\_T21 | 232 | T=49 ÷ 52 |
| Vgg\_ DC4\_DAC\_T22 | 234 | T=53 ÷ 56 |
| Vgg\_ DC4\_DAC\_T23 | 236 | T=57 ÷ 60 |
| Vgg\_ DC4\_DAC\_T24 | 238 | T=61 ÷ 64 |
| Vgg\_ DC4\_DAC\_T25 | 240 | T=65 ÷ 68 |
| Vgg\_ DC4\_DAC\_T26 | 242 | T=69 ÷ 72 |
| Vgg\_ DC4\_DAC\_T27 | 244 | T=73 ÷ 76 |
| Vgg\_ DC4\_DAC\_T28 | 246 | T=77 ÷ 80 |
| Vgg\_ DC4\_DAC\_T29 | 248 | T=81 ÷ 84 |
| Vgg\_ DC4\_DAC\_T30 | 250 | T=85 ÷ 88 |
| Vgg\_ DC4\_DAC\_T31 | 252 | T=89 ÷ 92 |
| Vgg\_ DC4\_DAC\_T32 | 254 | T=93 ÷ 96 |

Page 6: VVA **offset1** for DCA bit control

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_D0 | 0 | DCA < 00011 |
| PA\_VVA\_OFFSET\_D3 | 2 | DCA 00011 (Pnom - 3dBm) |
| PA\_VVA\_OFFSET\_D4 | 4 | DCA 00100 (Pnom - 4dBm) |
| PA\_VVA\_OFFSET\_D5 | 6 | DCA 00101 (Pnom - 5dBm) |
| PA\_VVA\_OFFSET\_D6 | 8 | DCA 00110 (Pnom - 6dBm) |
| PA\_VVA\_OFFSET\_D7 | 10 | DCA 00111 (Pnom - 7dBm) |
| PA\_VVA\_OFFSET\_D8 | 12 | DCA 01000 (Pnom - 8dBm) |
| PA\_VVA\_OFFSET\_D9 | 14 | DCA 01001 (Pnom - 9dBm) |
| PA\_VVA\_OFFSET\_D10 | 16 | DCA 01011 (Pnom - 10dBm) |
| PA\_VVA\_OFFSET\_D11 | 18 | DCA 01011 (Pnom - 11dBm) |
| PA\_VVA\_OFFSET\_D12 | 20 | DCA 01100 (Pnom - 12dBm) |
| PA\_VVA\_OFFSET\_D13 | 22 | DCA 01101 (Pnom - 13dBm) |
| PA\_VVA\_OFFSET\_D14 | 24 | DCA 01110 (Pnom - 14dBm) |
| PA\_VVA\_OFFSET\_D15 | 26 | DCA 01111 (Pnom - 15dBm) |
| PA\_VVA\_OFFSET\_D16 | 28 | DCA 10000 (Pnom - 16dBm) |
| PA\_VVA\_OFFSET\_D17 | 30 | DCA 10001 (Pnom - 17dBm) |
| PA\_VVA\_OFFSET\_D18 | 32 | DCA 10010 (Pnom - 18dBm) |
| PA\_VVA\_OFFSET\_D19 | 34 | DCA 10011 (Pnom - 19dBm) |
| PA\_VVA\_OFFSET\_D20 | 36 | DCA 10100 (Pnom - 20dBm) |
| PA\_VVA\_OFFSET\_D21 | 38 | DCA 10101 (Pnom - 21dBm) |
| PA\_VVA\_OFFSET\_D22 | 40 | DCA >10101 (Pnom - 21dBm) |
| PA\_VVA\_OFFSET\_D23 | 42 | spare |
| PA\_VVA\_OFFSET\_D24 | 44 | spare |
| PA\_VVA\_OFFSET\_D25 | 46 | spare |

Page 6: DCA state for DCA control - 6 bit

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_DCA \_D0 | 48 | DCA < 00011 |
| PA\_DCA \_D3 | 50 | DCA 00011 (Pnom - 3dBm) |
| PA\_DCA \_D4 | 52 | DCA 00100 (Pnom - 4dBm) |
| PA\_DCA \_D5 | 54 | DCA 00101 (Pnom - 5dBm) |
| PA\_DCA \_D6 | 56 | DCA 00110 (Pnom - 6dBm) |
| PA\_DCA \_D7 | 58 | DCA 00111 (Pnom - 7dBm) |
| PA\_DCA \_D8 | 60 | DCA 01000 (Pnom - 8dBm) |
| PA\_DCA \_D9 | 62 | DCA 01001 (Pnom - 9dBm) |
| PA\_DCA \_D10 | 64 | DCA 01011 (Pnom - 10dBm) |
| PA\_DCA \_D11 | 66 | DCA 01011 (Pnom - 11dBm) |
| PA\_DCA \_D12 | 68 | DCA 01100 (Pnom - 12dBm) |
| PA\_DCA \_D13 | 70 | DCA 01101 (Pnom - 13dBm) |
| PA\_DCA \_D14 | 72 | DCA 01110 (Pnom - 14dBm) |
| PA\_DCA \_D15 | 74 | DCA 01111 (Pnom - 15dBm) |
| PA\_DCA \_D16 | 76 | DCA 10000 (Pnom - 16dBm) |
| PA\_DCA \_D17 | 78 | DCA 10001 (Pnom - 17dBm) |
| PA\_DCA \_D18 | 80 | DCA 10010 (Pnom - 18dBm) |
| PA\_DCA \_D19 | 82 | DCA 10011 (Pnom - 19dBm) |
| PA\_DCA \_D20 | 84 | DCA 10100 (Pnom - 20dBm) |
| PA\_DCA \_D21 | 86 | DCA 10101 (Pnom - 21dBm) |
| PA\_DCA \_D22 | 88 | DCA >10101 (Pnom - 21dBm) |
| PA\_ DCA\_D23 | 90 | spare |
| PA\_ DCA\_D24 | 92 | spare |
| PA\_ DCA\_D25 | 94 | spare |

Page 6: VVA **offset2** for Fine Tune control frequency 0

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 96 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 98 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 100 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 102 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 104 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 106 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 108 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 110 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 112 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 114 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 116 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 118 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 120 | Spare |

Page 6: VVA **offset2** for Fine Tune control frequency 1

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 122 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 124 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 126 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 128 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 130 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 132 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 134 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 136 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 138 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 140 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 142 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 144 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 146 | Spare |

Page 6: VVA **offset2** for Fine Tune control frequency 2

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 148 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 150 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 152 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 154 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 156 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 158 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 160 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 162 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 164 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 166 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 168 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 170 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 172 | Spare |

Page 6: VVA **offset2** for Fine Tune control frequency 3

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 174 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 176 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 178 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 180 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 182 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 184 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 186 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 188 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 190 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 192 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 194 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 196 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 198 | Spare |

Page 6: VVA **offset2** for Fine Tune control frequency 4

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 200 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 202 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 204 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 206 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 208 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 210 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 212 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 214 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 216 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 218 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 220 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 222 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 224 | Spare |

Page 6: **VVA offset2** for Fine Tune control frequency 5

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 226 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 228 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 230 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 232 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 234 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 236 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 238 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 240 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 242 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 244 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 246 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 248 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 250 | Spare |

Page 7: **VVA offset2** for Fine Tune control frequency 6

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 0 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 2 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 4 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 6 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 8 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 10 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 12 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 14 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 16 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 18 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 20 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 22 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 24 | Spare |

Page 7: **VVA** **offset2** for Fine Tune control frequency 7

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VVA\_OFFSET\_FT0 | 26 | Fine tuning DC4 (40 dBm) |
| PA\_VVA\_OFFSET\_FT1 | 28 | Spare Fine tuning 1111 |
| PA\_VVA\_OFFSET\_FT2 | 30 | Spare Fine tuning 1110 |
| PA\_VVA\_OFFSET\_FT3 | 32 | Fine tuning 1101 (44.6 dBm) |
| PA\_VVA\_OFFSET\_FT4 | 34 | Fine tuning 1100 (44.8 dBm) |
| PA\_VVA\_OFFSET\_FT5 | 36 | Fine tuning 1011 (45 dBm) |
| PA\_VVA\_OFFSET\_FT6 | 38 | Fine tuning 1010 (45.2 dBm) |
| PA\_VVA\_OFFSET\_FT7 | 40 | Fine tuning 1001 (45.4 dBm) |
| PA\_VVA\_OFFSET\_FT8 | 42 | Fine tuning 1000 (45.6 dBm) |
| PA\_VVA\_OFFSET\_FT9 | 44 | Fine tuning 0111 (45.8 dBm) |
| PA\_VVA\_OFFSET\_FT10 | 46 | Fine tuning 0110 (46 dBm) |
| PA\_VVA\_OFFSET\_FT11 | 48 | Spare Fine tuning > 0110 |
| PA\_VVA\_OFFSET\_FT12 | 50 | Spare |

Page 7: **Vdd** **offset1** for Fine Tune control frequency 0

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_ VDD\_OFFSET\_FT0 | 52 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 54 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 56 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 58 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 60 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 62 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 64 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 66 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 68 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 70 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 72 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 74 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 76 | Spare |

Page 7: **Vdd** **offset1** for Fine Tune control frequency 1

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 78 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 80 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 82 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 84 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 86 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 88 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 90 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 92 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 94 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 96 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 98 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 100 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 102 | Spare |

Page 6: **VDD** **offset1** for Fine Tune control frequency 2

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 104 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 106 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 108 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 110 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 112 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 114 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 116 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 118 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 120 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 122 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 124 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 126 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 128 | Spare |

Page 7: **VDD** **offset1** for Fine Tune control frequency 3

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 130 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 132 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 134 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 136 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 138 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 140 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 142 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 144 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 146 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 148 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 150 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 152 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 154 | Spare |

Page 7: **VDD** **offset1** for Fine Tune control frequency 4

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 156 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 158 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 160 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 162 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 164 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 166 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 168 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 170 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 172 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 174 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 176 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 178 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 180 | Spare |

Page 7: **VDD** **offset1** for Fine Tune control frequency 5

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 182 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 184 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 186 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 188 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 190 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 192 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 194 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 196 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 198 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 200 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 202 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 204 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 206 | Spare |

Page 7: **VDD** **offset1** for Fine Tune control frequency 6

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 212 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 214 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 216 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 218 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 220 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 222 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 224 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 226 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 228 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 230 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 232 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 234 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 236 | Spare |

Page 8: **VDD** **offset1** for Fine Tune control frequency 7

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| PA\_VDD\_OFFSET\_FT0 | 204 | Fine tuning DC4 (40 dBm) |
| PA\_VDD\_OFFSET\_FT1 | 206 | Spare Fine tuning 1111 |
| PA\_VDD\_OFFSET\_FT2 | 208 | Spare Fine tuning 1110 |
| PA\_VDD\_OFFSET\_FT3 | 210 | Fine tuning 1101 (44.6 dBm) |
| PA\_VDD\_OFFSET\_FT4 | 212 | Fine tuning 1100 (44.8 dBm) |
| PA\_VDD\_OFFSET\_FT5 | 214 | Fine tuning 1011 (45 dBm) |
| PA\_VDD\_OFFSET\_FT6 | 216 | Fine tuning 1010 (45.2 dBm) |
| PA\_VDD\_OFFSET\_FT7 | 218 | Fine tuning 1001 (45.4 dBm) |
| PA\_VDD\_OFFSET\_FT8 | 220 | Fine tuning 1000 (45.6 dBm) |
| PA\_VDD\_OFFSET\_FT9 | 222 | Fine tuning 0111 (45.8 dBm) |
| PA\_VDD\_OFFSET\_FT10 | 224 | Fine tuning 0110 (46 dBm) |
| PA\_VDD\_OFFSET\_FT11 | 226 | Spare Fine tuning > 0110 |
| PA\_VDD\_OFFSET\_FT12 | 228 | Spare |

Page 8: VVA control for CAL-SAR-SAT output over temperature and frequency

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| VVA\_CAL\_SAT\_DAC\_T0 | 0 | T=-31 ÷ -28 |
| VVA\_CAL\_SAT\_DAC\_T1 | 2 | T=-27 ÷ -24 |
| VVA\_CAL\_SAT\_DAC\_T2 | 4 | T=-23 ÷ -20 |
| VVA\_CAL\_SAT\_DAC\_T3 | 6 | T=-19 ÷ -16 |
| VVA\_CAL\_SAT\_DAC\_T4 | 8 | T=-15 ÷ -12 |
| VVA\_CAL\_SAT\_DAC\_T5 | 10 | T=-11 ÷ -8 |
| VVA\_CAL\_SAT\_DAC\_T6 | 12 | T=-7 ÷ -4 |
| VVA\_CAL\_SAT\_DAC\_T7 | 14 | T=-3 ÷ 0 |
| VVA\_CAL\_SAT\_DAC\_T8 | 16 | T=1 ÷ 4 |
| VVA\_CAL\_SAT\_DAC\_T9 | 18 | T=5 ÷ 8 |
| VVA\_CAL\_SAT\_DAC\_T10 | 20 | T=9 ÷ 12 |
| VVA\_CAL\_SAT\_DAC\_T11 | 22 | T=13 ÷ 16 |
| VVA\_CAL\_SAT\_DAC\_T12 | 24 | T=17 ÷ 20 |
| VVA\_CAL\_SAT\_DAC\_T13 | 26 | T=21 ÷ 24 |
| VVA\_CAL\_SAT\_DAC\_T14 | 28 | T=25 ÷ 28 |
| VVA\_CAL\_SAT\_DAC\_T15 | 30 | T=29 ÷ 32 |
| VVA\_CAL\_SAT\_DAC\_T16 | 32 | T=33 ÷ 36 |
| VVA\_CAL\_SAT\_DAC\_T17 | 34 | T=37 ÷ 40 |
| VVA\_CAL\_SAT\_DAC\_T18 | 36 | T=41 ÷ 44 |
| VVA\_CAL\_SAT\_DAC\_T19 | 38 | T=45 ÷ 48 |
| VVA\_CAL\_SAT\_DAC\_T20 | 40 | T=49 ÷ 52 |
| VVA\_CAL\_SAT\_DAC\_T21 | 42 | T=53 ÷ 56 |
| VVA\_CAL\_SAT\_DAC\_T22 | 44 | T=57 ÷ 60 |
| VVA\_CAL\_SAT\_DAC\_T23 | 46 | T=61 ÷ 64 |
| VVA\_CAL\_SAT\_DAC\_T0 | 48 | T=65 ÷ 68 |
| VVA\_CAL\_SAT\_DAC\_T1 | 50 | T=69 ÷ 72 |
| VVA\_CAL\_SAT\_DAC\_T2 | 52 | T=73 ÷ 76 |
| VVA\_CAL\_SAT\_DAC\_T3 | 54 | T=77 ÷ 80 |
| VVA\_CAL\_SAT\_DAC\_T4 | 56 | T=81 ÷ 84 |
| VVA\_CAL\_SAT\_DAC\_T5 | 58 | T=85 ÷ 88 |
| VVA\_CAL\_SAT\_DAC\_T6 | 60 | T=89 ÷ 92 |
| VVA\_CAL\_SAT\_DAC\_T7 | 62 | T=93 ÷ 96 |
| PA\_VVA\_OFFSET\_Freq0 | 60 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq1 | 62 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq2 | 64 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq3 | 66 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq4 | 68 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq5 | 70 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq6 | 72 | VVA offset3 |
| PA\_VVA\_OFFSET\_Freq7 | 74 | VVA offset3 |

Page 8: TX\_PULSE\_MPA\_ON pulse rising edge delay over temperature

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Tx\_Envelope\_Rise\_Delay\_T1 | 76 | delay=N\*5 nS, Nmin=0, Nmax=40 delay value from 0 to 200nS, clock 200MHz |
| Tx\_Envelope\_Rise\_Delay\_T2 | 78 |
| Tx\_Envelope\_Rise\_Delay\_T3 | 80 |
| Tx\_Envelope\_Rise\_Delay\_T4 | 82 |
| Tx\_Envelope\_Rise\_Delay\_T5 | 84 |
| Tx\_Envelope\_Rise\_Delay\_T6 | 86 |
| Tx\_Envelope\_Rise\_Delay\_T7 | 88 |
| Tx\_Envelope\_Rise\_Delay\_T8 | 90 |
| Tx\_Envelope\_Rise\_Delay\_T9 | 92 |
| Tx\_Envelope\_Rise\_Delay\_T10 | 94 |
| Tx\_Envelope\_Rise\_Delay\_T11 | 96 |
| Tx\_Envelope\_Rise\_Delay\_T12 | 98 |
| Tx\_Envelope\_Rise\_Delay\_T13 | 100 |
| Tx\_Envelope\_Rise\_Delay\_T14 | 102 |
| Tx\_Envelope\_Rise\_Delay\_T15 | 104 |
| Tx\_Envelope\_Rise\_Delay\_T16 | 106 |
| Tx\_Envelope\_Rise\_Delay\_T17 | 108 |
| Tx\_Envelope\_Rise\_Delay\_T18 | 110 |
| Tx\_Envelope\_Rise\_Delay\_T19 | 112 |
| Tx\_Envelope\_Rise\_Delay\_T20 | 114 |
| Tx\_Envelope\_Rise\_Delay\_T21 | 116 |
| Tx\_Envelope\_Rise\_Delay\_T22 | 118 |
| Tx\_Envelope\_Rise\_Delay\_T23 | 120 |
| Tx\_Envelope\_Rise\_Delay\_T24 | 122 |
| Tx\_Envelope\_Rise\_Delay\_T25 | 124 |
| Tx\_Envelope\_Rise\_Delay\_T26 | 126 |
| Tx\_Envelope\_Rise\_Delay\_T27 | 128 |
| Tx\_Envelope\_Rise\_Delay\_T28 | 130 |
| Tx\_Envelope\_Rise\_Delay\_T29 | 132 |
| Tx\_Envelope\_Rise\_Delay\_T30 | 134 |
| Tx\_Envelope\_Rise\_Delay\_T31 | 136 |
| Tx\_Envelope\_Rise\_Delay\_T32 | 138 |

Page 8: TX\_PULSE\_MPA\_ON falling edge delay over temperature

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Tx\_Envelope\_Fall\_Delay\_T1 | 140 | delay=N\*5 nS, Nmin=0, Nmax=40 delay value from 0 to 200nS, clock 200MHz |
| Tx\_Envelope\_Fall\_Delay\_T2 | 142 |
| Tx\_Envelope\_Fall\_Delay\_T3 | 144 |
| Tx\_Envelope\_Fall\_Delay\_T4 | 146 |
| Tx\_Envelope\_Fall\_Delay\_T5 | 148 |
| Tx\_Envelope\_Fall\_Delay\_T6 | 150 |
| Tx\_Envelope\_Fall\_Delay\_T7 | 152 |
| Tx\_Envelope\_Fall\_Delay\_T8 | 154 |
| Tx\_Envelope\_Fall\_Delay\_T9 | 156 |
| Tx\_Envelope\_Fall\_Delay\_T10 | 158 |
| Tx\_Envelope\_Fall\_Delay\_T11 | 160 |
| Tx\_Envelope\_Fall\_Delay\_T12 | 162 |
| Tx\_Envelope\_Fall\_Delay\_T13 | 164 |
| Tx\_Envelope\_Fall\_Delay\_T14 | 166 |
| Tx\_Envelope\_Fall\_Delay\_T15 | 168 |
| Tx\_Envelope\_Fall\_Delay\_T16 | 170 |
| Tx\_Envelope\_Fall\_Delay\_T17 | 172 |
| Tx\_Envelope\_Fall\_Delay\_T18 | 174 |
| Tx\_Envelope\_Fall\_Delay\_T19 | 176 |
| Tx\_Envelope\_Fall\_Delay\_T20 | 178 |
| Tx\_Envelope\_Fall\_Delay\_T21 | 180 |
| Tx\_Envelope\_Fall\_Delay\_T22 | 182 |
| Tx\_Envelope\_Fall\_Delay\_T23 | 184 |
| Tx\_Envelope\_Fall\_Delay\_T24 | 186 |
| Tx\_Envelope\_Fall\_Delay\_T25 | 188 |
| Tx\_Envelope\_Fall\_Delay\_T26 | 190 |
| Tx\_Envelope\_Fall\_Delay\_T27 | 192 |
| Tx\_Envelope\_Fall\_Delay\_T28 | 194 |
| Tx\_Envelope\_Fall\_Delay\_T29 | 196 |
| Tx\_Envelope\_Fall\_Delay\_T30 | 198 |
| Tx\_Envelope\_Fall\_Delay\_T31 | 200 |
| Tx\_Envelope\_Fall\_Delay\_T32 | 202 |

Page 9: TX\_PULSE\_SPA\_ON pulse rising edge delay over temperature

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Tx\_Envelope\_Rise\_Delay\_T1 | 76 | delay=N\*5 nS, Nmin=0, Nmax=40 delay value from 0 to 200nS, clock 200MHz |
| Tx\_Envelope\_Rise\_Delay\_T2 | 78 |
| Tx\_Envelope\_Rise\_Delay\_T3 | 80 |
| Tx\_Envelope\_Rise\_Delay\_T4 | 82 |
| Tx\_Envelope\_Rise\_Delay\_T5 | 84 |
| Tx\_Envelope\_Rise\_Delay\_T6 | 86 |
| Tx\_Envelope\_Rise\_Delay\_T7 | 88 |
| Tx\_Envelope\_Rise\_Delay\_T8 | 90 |
| Tx\_Envelope\_Rise\_Delay\_T9 | 92 |
| Tx\_Envelope\_Rise\_Delay\_T10 | 94 |
| Tx\_Envelope\_Rise\_Delay\_T11 | 96 |
| Tx\_Envelope\_Rise\_Delay\_T12 | 98 |
| Tx\_Envelope\_Rise\_Delay\_T13 | 100 |
| Tx\_Envelope\_Rise\_Delay\_T14 | 102 |
| Tx\_Envelope\_Rise\_Delay\_T15 | 104 |
| Tx\_Envelope\_Rise\_Delay\_T16 | 106 |
| Tx\_Envelope\_Rise\_Delay\_T17 | 108 |
| Tx\_Envelope\_Rise\_Delay\_T18 | 110 |
| Tx\_Envelope\_Rise\_Delay\_T19 | 112 |
| Tx\_Envelope\_Rise\_Delay\_T20 | 114 |
| Tx\_Envelope\_Rise\_Delay\_T21 | 116 |
| Tx\_Envelope\_Rise\_Delay\_T22 | 118 |
| Tx\_Envelope\_Rise\_Delay\_T23 | 120 |
| Tx\_Envelope\_Rise\_Delay\_T24 | 122 |
| Tx\_Envelope\_Rise\_Delay\_T25 | 124 |
| Tx\_Envelope\_Rise\_Delay\_T26 | 126 |
| Tx\_Envelope\_Rise\_Delay\_T27 | 128 |
| Tx\_Envelope\_Rise\_Delay\_T28 | 130 |
| Tx\_Envelope\_Rise\_Delay\_T29 | 132 |
| Tx\_Envelope\_Rise\_Delay\_T30 | 134 |
| Tx\_Envelope\_Rise\_Delay\_T31 | 136 |
| Tx\_Envelope\_Rise\_Delay\_T32 | 138 |

Page 9: TX\_PULSE\_SPA\_ON pulse falling edge delay over temperature

|  |  |  |
| --- | --- | --- |
| **Data** | **Byte** | **Description** |
| Tx\_Envelope\_Fall\_Delay\_T1 | 140 | delay=N\*5 nS, Nmin=0, Nmax=40 delay value from 0 to 200nS, clock 200MHz |
| Tx\_Envelope\_Fall\_Delay\_T2 | 142 |
| Tx\_Envelope\_Fall\_Delay\_T3 | 144 |
| Tx\_Envelope\_Fall\_Delay\_T4 | 146 |
| Tx\_Envelope\_Fall\_Delay\_T5 | 148 |
| Tx\_Envelope\_Fall\_Delay\_T6 | 150 |
| Tx\_Envelope\_Fall\_Delay\_T7 | 152 |
| Tx\_Envelope\_Fall\_Delay\_T8 | 154 |
| Tx\_Envelope\_Fall\_Delay\_T9 | 156 |
| Tx\_Envelope\_Fall\_Delay\_T10 | 158 |
| Tx\_Envelope\_Fall\_Delay\_T11 | 160 |
| Tx\_Envelope\_Fall\_Delay\_T12 | 162 |
| Tx\_Envelope\_Fall\_Delay\_T13 | 164 |
| Tx\_Envelope\_Fall\_Delay\_T14 | 166 |
| Tx\_Envelope\_Fall\_Delay\_T15 | 168 |
| Tx\_Envelope\_Fall\_Delay\_T16 | 170 |
| Tx\_Envelope\_Fall\_Delay\_T17 | 172 |
| Tx\_Envelope\_Fall\_Delay\_T18 | 174 |
| Tx\_Envelope\_Fall\_Delay\_T19 | 176 |
| Tx\_Envelope\_Fall\_Delay\_T20 | 178 |
| Tx\_Envelope\_Fall\_Delay\_T21 | 180 |
| Tx\_Envelope\_Fall\_Delay\_T22 | 182 |
| Tx\_Envelope\_Fall\_Delay\_T23 | 184 |
| Tx\_Envelope\_Fall\_Delay\_T24 | 186 |
| Tx\_Envelope\_Fall\_Delay\_T25 | 188 |
| Tx\_Envelope\_Fall\_Delay\_T26 | 190 |
| Tx\_Envelope\_Fall\_Delay\_T27 | 192 |
| Tx\_Envelope\_Fall\_Delay\_T28 | 194 |
| Tx\_Envelope\_Fall\_Delay\_T29 | 196 |
| Tx\_Envelope\_Fall\_Delay\_T30 | 198 |
| Tx\_Envelope\_Fall\_Delay\_T31 | 200 |
| Tx\_Envelope\_Fall\_Delay\_T32 | 202 |