

```
'*****
'* Name      : 12F509 QO-100 F1DFY&F2QY.BAS      *
'* Author    : Ulf Hülsenbusch DK2RV            *
'* Notice    : Copyright (c) 2020 Ulf Hülsenbusch *
'*           : All Rights Reserved              *
'* Date      : 15.03.2020                        *
'* Version   : 1.2                              *
'* Notes     : Programming LO with ADF4351       *
'*           : V1.2 1967,0 changed to 1967,5 MHz *
'*****
```

Device=12F509

```
'Interne RC-Oszillator 4 MHz
Xtal = 4
Set OSCCAL
Config MCLRE_off, CP_off, WDT_off, INTRC_OSC

OPTION_REG.6 = 0      'Weak Pullups RB0, 1, 3
```

Declare All_Digital = true

```
Dim i As Byte
Dim LD_Fail As Byte
```

```
Output GPIO.0      'LE
Output GPIO.1      'CLK
Input  GPIO.2      'LD
Input  GPIO.3      'TX Input
Output GPIO.4      'DAT
Output GPIO.5      'LED_TX
```

```
Symbol LE = GPIO.0
Symbol CLK = GPIO.1
Symbol LD = GPIO.2
Symbol TX_IN = GPIO.3
Symbol DAT = GPIO.4
Symbol LED_TX = GPIO.5
```

```
DelayMS 1000
LED_TX = 0
```

```
LE = 1
DAT = 0
CLK = 1
```

```
For i = 1 To 6
    Toggle LED_TX
    DelayMS 50
Next i
```

```
DelayMS 1000
```

```
'*****
'*****
'Main
'*****
Main:
    GoSub SET_RX
    LED_TX = 0

    While TX_IN = 1      '1 = Schalttransistors ist gesperrt
    Wend
```

```
GoSub SET_TX
LED_TX = 1

While TX_IN = 0
Wend
```

GoTo Main

```
'*****
' Subroutine Set Register lädt die Registerwerte in ADF4351
' für 1967,5 MHz +5dBm
'*****
```

SET_TX:

```
LE = 0 'Write R5
SHOut DAT, CLK, MsbFirst_L, [$0058\16, $0005\16]
LE = 1

LE = 0 'Write R4
SHOut DAT, CLK, MsbFirst_L, [$0095\16, $003C\16]
LE = 1

LE = 0 'Write R3
SHOut DAT, CLK, MsbFirst_L, [$0000\16, $04B3\16]
LE = 1

LE = 0 'Write R2
SHOut DAT, CLK, MsbFirst_L, [$0000\16, $4E42\16]

LE = 0 'Write R1
SHOut DAT, CLK, MsbFirst_L, [$0800\16, $8011\16]
LE = 1

LE = 0 'Write R0
SHOut DAT, CLK, MsbFirst_L, [$00C4\16, $8011\16]
LE = 1
```

LD_Fail = 0

While LD = 0

```
Toggle LED_TX
Inc LD_Fail
DelayMS 5
```

```
While LD_Fail = 255 'wenn 255xfail (1,3sec) dann hier Endlosschleife
Toggle LED_TX
DelayMS 250
```

Wend

Wend

LED_TX = 1 'wenn TX-Frequenz geladen wurde

Return

```
'*****
' Subroutine SET TX lädt die Registerwerte
' in ADF4351 für 2514,0 MHz -1dBm
'*****
```

SET_RX:

```
LE = 0 'Write R5
SHOut DAT, CLK, MsbFirst_L, [$0058\16, $0005\16]
LE = 1
```

```
LE = 0  'Write R4
SHOut DAT, CLK, MsbFirst_L, [$0085\16, $002C\16]
LE = 1

LE = 0  'Write R3
SHOut DAT, CLK, MsbFirst_L, [$0000\16, $04B3\16]
LE = 1

LE = 0  'Write R2
SHOut DAT, CLK, MsbFirst_L, [$0000\16, $4E42\16]

LE = 0  'Write R1
SHOut DAT, CLK, MsbFirst_L, [$0800\16, $8029\16]
LE = 1

LE = 0  'Write R0
SHOut DAT, CLK, MsbFirst_L, [$007D\16, $8010\16]
LE = 1
```

```
LD_Fail = 0
While LD = 0
  Toggle LED_TX
  Inc LD_Fail
  DelayMS 5

  While LD_Fail = 255      'wenn 255xfail (1,3sec) dann hier Endlosschleife
    Toggle LED_TX
    DelayMS 250
  Wend
Wend
```

```
LED_TX = 0  'wenn RX-Frequenz geladen wurde
```

```
Return
```

```
'*****
```

```
End
```