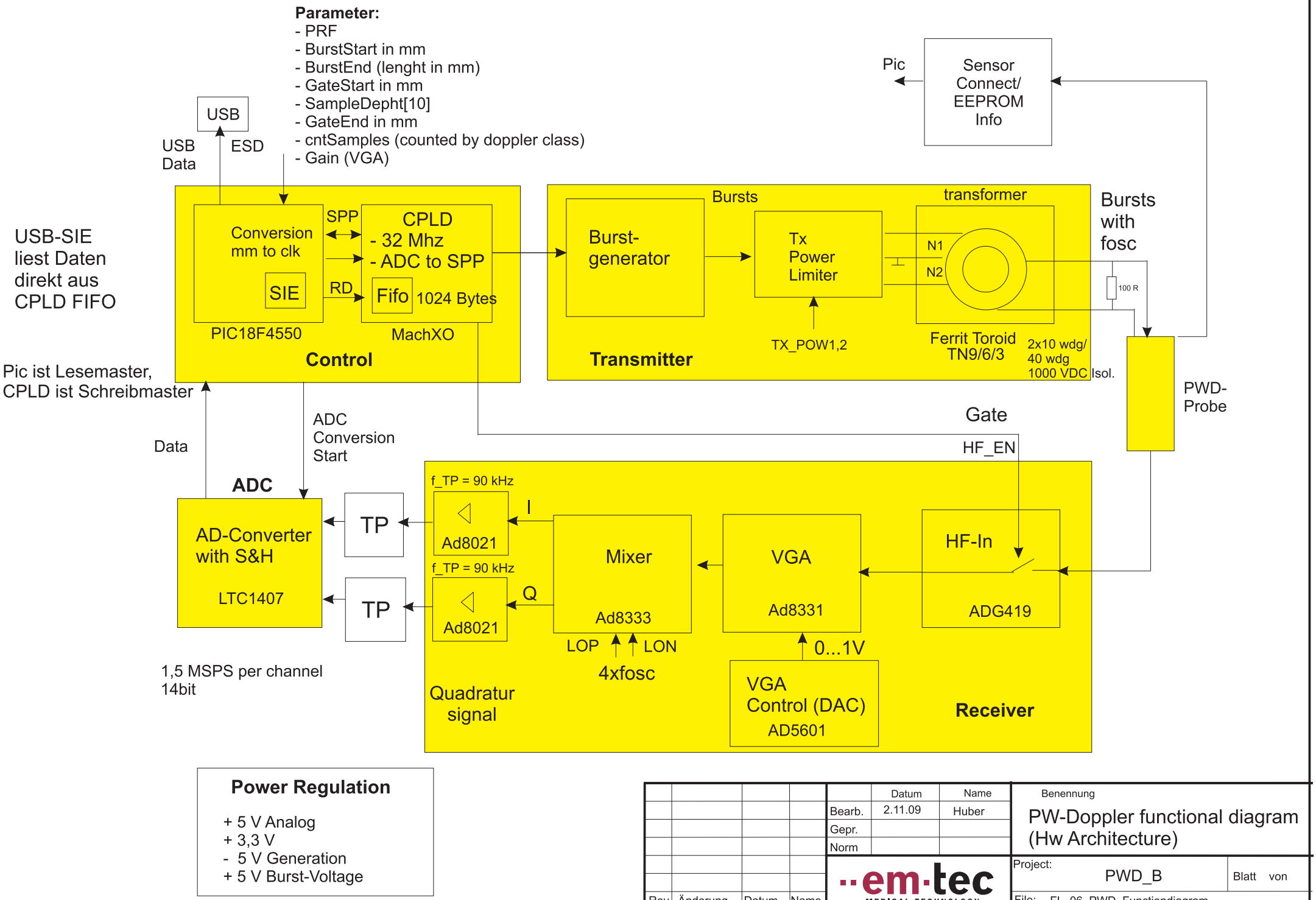
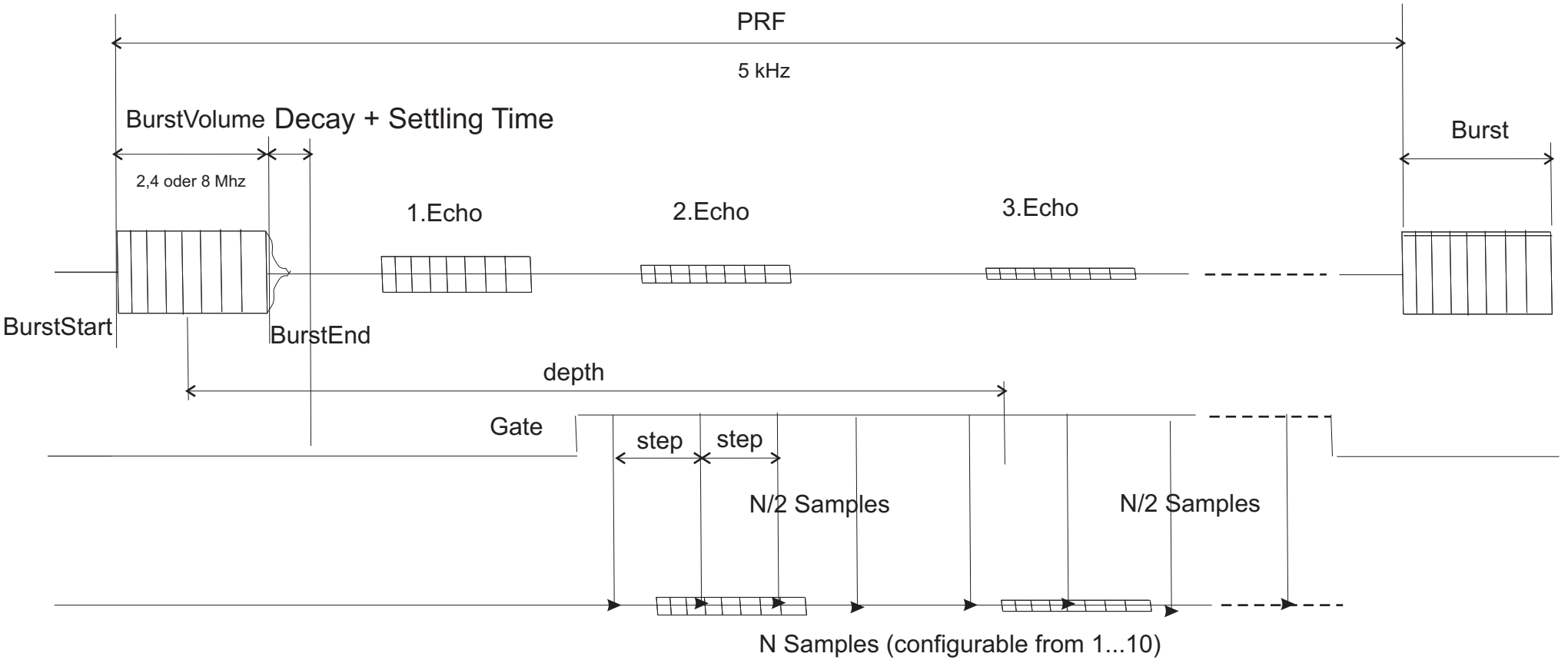

Parameter:
- PRF
- BurstStart in mm
- BurstEnd (lenght in mm)
- GateStart in mm
- SampleDepht[10]
- GateEnd in mm
- cntSamples (counted by doppler class)
- Gain (VGA)
USB
USB Data
ESD
Pic
Sensor Connect/ EEPROM Info
USB-SIE liest Daten direkt aus CPLD FIFO
Conversion mm to clk
SIE
SPP
RD
CPLD
- 32 Mhz
- ADC to SPP
Fifo
1024 Bytes
PIC18F4550
MachXO
Control
Bursts
Burst-generator
Tx Power Limiter
transformer
N1
N2
TX_POW1,2
Ferrit Toroid TN9/6/3
2x10 wdg/ 40 wdg
1000 VDC Isol.
Transmitter
Bursts with fosc
100 R
PWD-Probe
Pic ist Lesemaster, CPLD ist Schreibmaster
Data
ADC Conversion Start
Gate
HF_EN
ADC
AD-Converter with S&H
LTC1407
TP
TP
f_TP = 90 kHz
Ad8021
I
f_TP = 90 kHz
Ad8021
Q
Mixer
Ad8333
LOP
LON
4xfosc
VGA
Ad8331
0...1V
VGA Control (DAC)
AD5601
HF-In
ADG419
Quadratur signal
Receiver
1,5 MSPS per channel
14bit
Power Regulation
+ 5 V Analog
+ 3,3 V
- 5 V Generation
+ 5 V Burst-Voltage
Rev.
Änderung
Datum
Name
Bearb.
2.11.09
Huber
Gepr.
Norm
em-tec MEDICAL TECHNOLOGY
Benennung
PW-Doppler functional diagram (Hw Architecture)
Project:
PWD_B
Blatt
von
File:
FL_06_PWD_Functiondiagram

PW-Doppler timing diagram



Burst Start = 0 mm (nur Null sinnvoll!)
Burst End = burstStart + Burst volume
Gate start = 8
Sample1 = 10 mm
Sample 2 = 12 mm...
Sample 9 =
Sample 10 = 50
Gate end

SampleVolume

step: min. 1 mm (”Äquisamples”)

Ultraschall: 1 mm:= 660 ns

Rev.	Änderung	Datum	Name

	Datum	Name
Bearb.	2.11.09	Huber
Gepr.		
Norm		

em·tec MEDICAL TECHNOLOGY

Benennung: PW-Doppler timing diagram

Project: PWD_B

Blatt von

File: FL_06_PWD_Functiondiagram