

Project Budget for Development of Broadband Wireless 1024-QAM Modem

Resources

2 System Engineers
2 ASIC (HW) Engineers, 1 RF (Analog) Engineer
3 SW Engineers

Employee Salary

Employee	Months of involvement
System Engr I	18
System Engr II	16
ASIC Engr I	18
ASIC Engr II	16
RF Engr	16
L1 SW Engr	15
L2 SW Engr	12
L3 SW Engr	12
Total 8 engrs	123 Months

Under the assumption of average salary of 100K/year for an engineer and 30% of budget overhead for benefit and operation:

Total Salary+Benefit = 123 (Man/Month) / 12 (Months) X 100K X 1.3 = 1350K USD

Capital Equipment

Design Tools:

1. 2 Model sim License (60K)
2. Qaurtus FPGA toolset license (100K)
3. FPGA vendor IP (50K)
4. 10 Laptop Computers (12K)
5. 2 MATLAB License (10K)

Test Equipment (rental)

6. R&S SMA Signal Generator (20K)
7. Spectrum Analyzer (15K)
8. Channel Simulator (20K)
9. Lab equipment, such as power supply, volt meter, etc (20K)

Budget for Design tool & Test equipment = 307K USD

3 FPGA boards development (60K)

Office rental & Office equipment (180K)