



DESCRIPTION

The PT9202 device is a high performance DVD RF chip, it supports up to DVD 4X and CD 20X reading. Base on analog circuit part that contains some servo functions for track and focus controller; RF attenuator, AGC, programmable equalizer for DVD read channel. Auto laser power control circuit supports twin lasers system of OPU. Programmable functions of PT9202 are controlled by internal registers.

FEATURES

READ CHANNEL

- 60MHz bandwidth
- VGA gain range is from 1.70dB to 23.65dBV
- Support high gain mode for RW disc
- VGA support auto gain control mode and hold mode
- Programmable attenuator(min:0.25V/V,2bit resolution)
- Programmable amplitude of RF signal
- Programmable attack current for speeding up AGC loop
- Low leakage current when AGC hold mode
- Programmable cutoff frequency of RFEQ, range is from 2.3MHz to 27.4MHz
- $\pm 20\%$ Fc accuracy
- Programmable boost gain range of RFEQ is from 0dB to 13.4dB
- Less than 2% total harmonic distortion
- 7th RF equalizer and 2Fc constant group delay
- 5% group delay variation

SERVO

- 40/80KHz for FE/RFLVL module
- Programmable offset adjust for FE, range is $\pm 2480\text{mV}$. For TE, 1st stage range is $\pm 240\text{mV}$, 2nd stage range is $\pm 1200\text{mV}$. For LSE, range is $\pm 620\text{mV}$. For RFLVL/RFRP, 1st stage range is $\pm 120\text{mV}$, 2nd stage range is $\pm 1200\text{mV}$
- Programmable gain for FE/TE/LSE/RFLVL/RFRP, range is from -3dB to 28dB
- 2nd low pass filter for TE/RFRP module, range is from 75KHz to 300KHz
- Support high gain mode for CDRW/DVD+-RW/DVD9 disc
- Support defect/finger print/blank area detector
- Support 2 methods(three beam, DPD) for TE generator
- Support 2 methods(Astigmatic and Knife -edge) for FE generator
- Support FE/TE balance gain for signal unbalance calibration
- Programmable equalizer for the differential phase detection circuit
- Support 3 bit GCA gain stage for input signals of DPD circuit, range is from -12dB to 16 dB
- Support defect protection function for DPD circuit
- Support BCA detect function



AUTO LASER POWER CONTROL

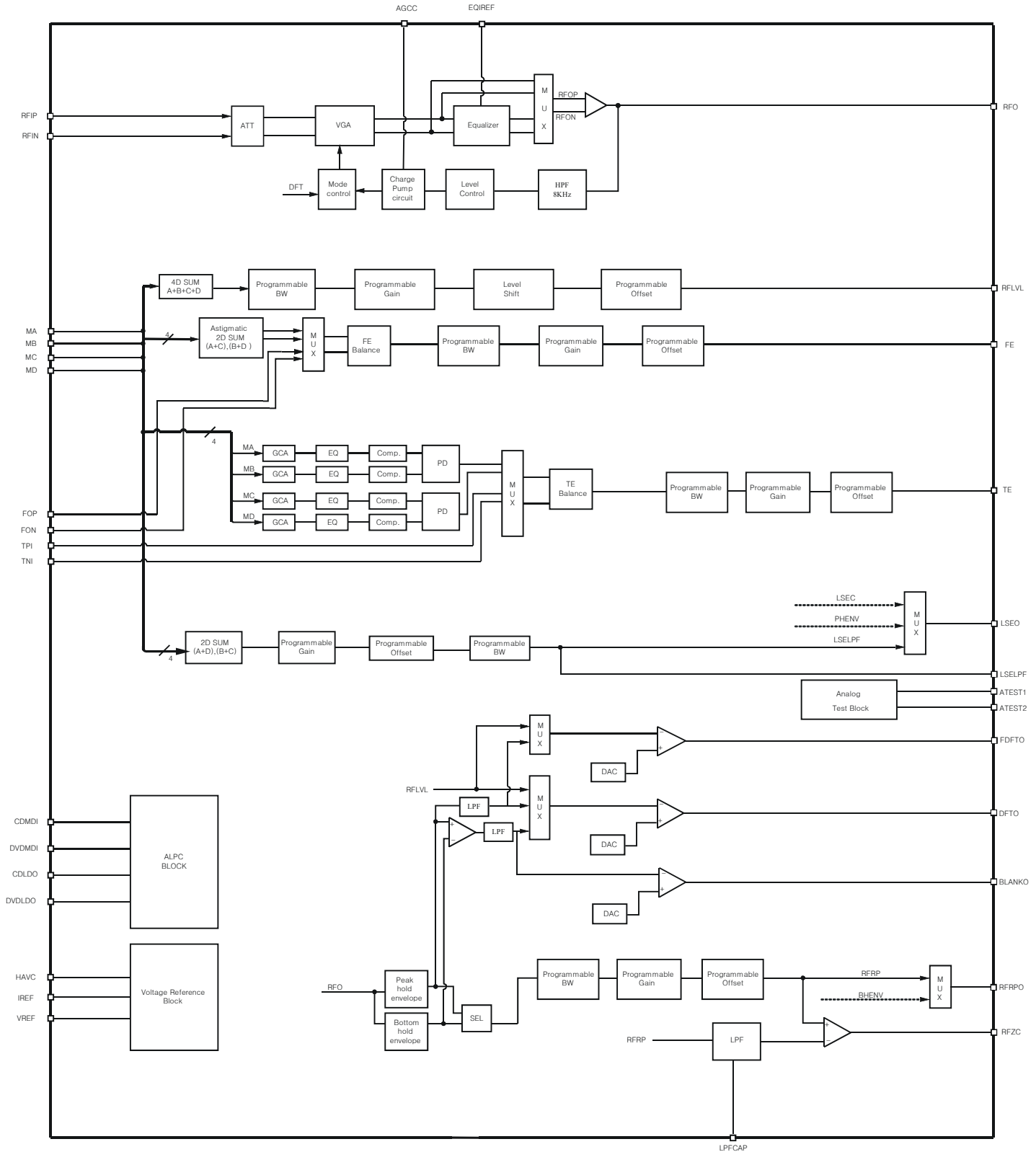
- Support OPU of twin lasers
- Programmable laser power
- Support high loop gain of ALPC circuit to avoid laser power variation

VOLTAGE BIAS CIRCUIT

- Support programmable HAVC for OPU bias voltage
- Support VREF for internal circuit reference voltage

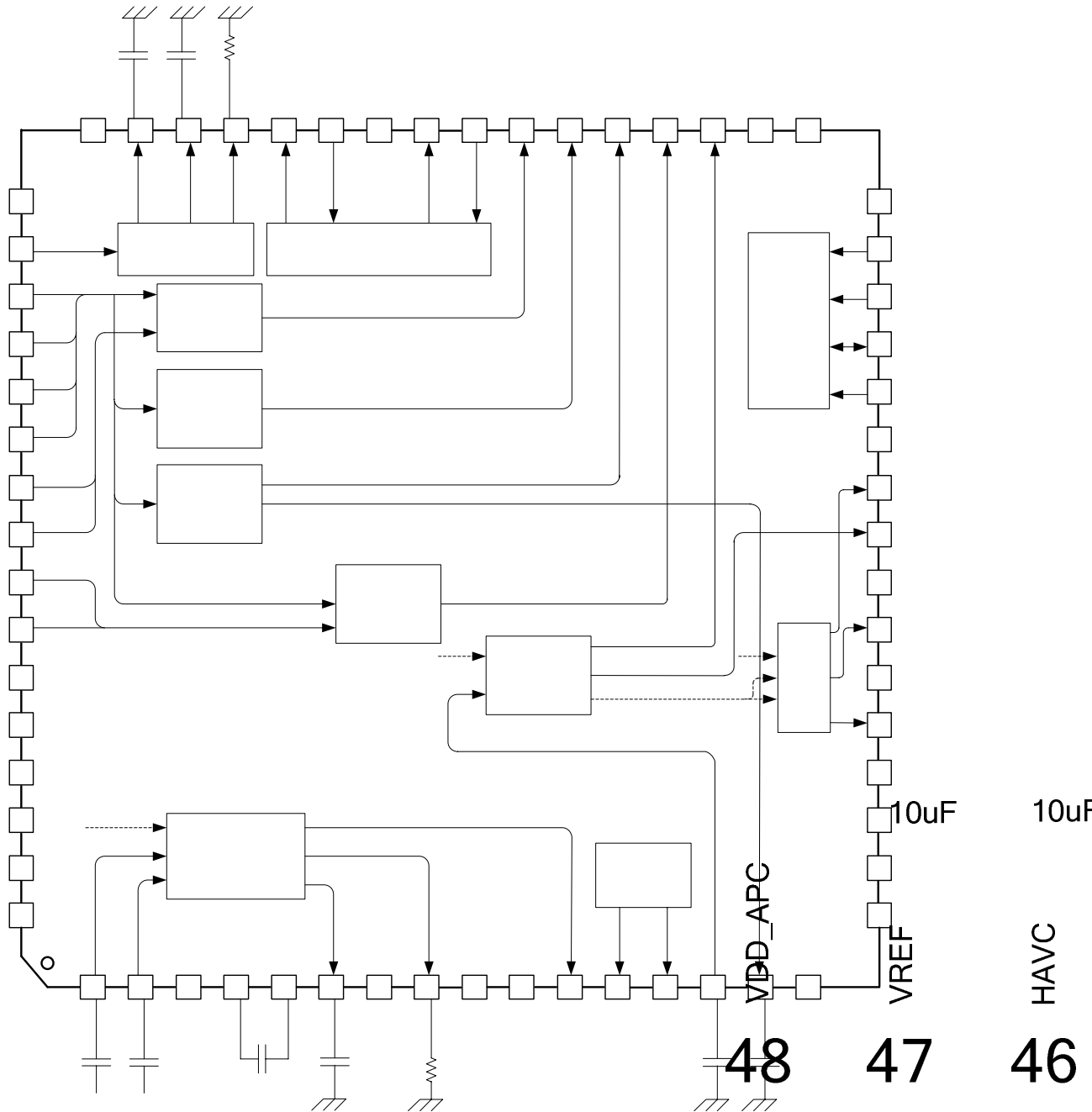


BLOCK DIAGRAM





APPLICATION CIRCUIT



NC

49

HAVCIN

50

Voltage Reference Block



普誠科技股份有限公司
Princeton Technology Corp.

Tel: 886-2-66296288
Fax: 886-2-29174598
URL: <http://www.princeton.com.tw>

DVD Analog Front-End

Preliminary

PT9202

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT9202-LQ(L)	64 Pins, LQFP	PT9202-LQ