DVD-RAM MASTERING GENERATOR

DA-3380

OUTLINE

DA-3380 is a signal source for making the master unrecord optical disc that satisfies the DVD-RAM standard. This unit provides the signal to make the all areas (embossed data area and rewritable area) of DVD-RAM disc in accordance with data from the panel switches and the serial interface and supplies the signal to the optical cutter.

FEATURES

Generate the embossed data

The unit automatically generated the signal to make the Pre-Pit (embossed data) for the Inside circumference on the DVD-RAM disc by connection with personal computer (RF-1st signal).

Record the groove and the pit of header part by the single beam one sequence

The unit provides the RF-2nd signal to make the Header-Pit for rewritable area and the Deflect signal to make the groove on the DVD-RAM disc.

Pulse width variable function

The pulse width variable function is provided to optionally correct the pulse width of the RF signal in accordance with characteristics of the optical cutter.

Automatically generates the signal

The unit automatically generates the signal for cutting the disc from the inside circumference to the outside circumference.

Output voltage arbitrary set function

The output voltage is arbitrarily set in accordance with each pulse in the RF signal.

Applicable to 450 rpm and 900 rpm

The unit can be used with the optical cutter of the rotation speed 450 rpm and 900 rpm.

Option

Applicable to 4.7 Gbytes

SCSI

DA-3380

REQUIREMENT FOR OPTICAL CUTTER

Dual beam drive

It is necessary to drive two laser spots to record the data in the embossed data area and rewritable area.

LOCK signal

The rotation control function of CAV is necessary follow the reference signal from the unit.

START signal

Beginning of the signal generation is detected from the radius position of the disc and the function to output the beginning timing to the unit is necessary.

SPECIFICATIONS

RF-1st signal (embossed area output) and RF-2nd signal (rewritable area output)

Output range (TOP) ..... Variable at 0 ~ Approx.+1.0V
Output range (BOTOM) ..... Variable at 0 ~ TOP level
Setting resolution 2mV
Output impedance ..... Approx. 50 Ω
Transmission clock ..... FR-1st : 5.22MHz (450 rpm)
RF-2nd: 5.50MHz ~ 12.94MHz (450 rpm)
Frequency accuracy ..... 20ppm or less
Residual jitter ..... 1ns or less
Rise time and fall time ..... 5ns or less
Pulse width variable function
Setting range ..... Approx.-1T ~ Approx.+20ns
Setting resolution 2ns
Automatic switch at output level
Switch by each T ..... 3T ~ 14T

Deflect signal (groove signal + header position control signal)

Groove signal
Output range ..... Variable at 0 ~ Approx.200mV Sine wave
Setting resolution ..... 1 mV
Output impedance Approx.50Ω
Output frequency ..... 29.58kHz ~ 69.57kHz (450rpm)
Frequency accuracy ..... 20ppm or less
Distortion rate ..... 1% or less (20mV ~ 200mVp-p)
Groove end position correction
Variable range :
3T ~ 7T (Standard value 5T)
Setting resolution : 0.5T
Output polarity switch output polarity is reversed
Header position control signal
Output range ..... Variable at 0 ~ Approx. ± 500mV, pulse signal
Setting resolution 2mV (Possible to set positive and negative individually)
Rise time and fall time 20ns or less
Output position adjustment (ID1,2) :
0 ~ + 4T in end position of groove, 0.5T step
Output position adjustment (ID3,4) :
0 ~ + 4T in end mark of ID2, 0.5T step

START/STOP signal (input)

Input impedance ..... Approx.47 kΩ
Proper pulse width ..... 10ms or less
Logical polarity ..... Active low

LOCK signal (output)

Output ..... Line driver signal (pulse signal)
Output impedance ..... Approx.50 Ω
Output frequency 15.75kHz
Frequency accuracy ..... 20ppm or less
Duty ratio ..... 50±10%

Power source ..... 100 ~ 240 VAC, 50/60 Hz
Approx.16 W

Case dimensions ..... 190 (W) × 128 (H) × 350 (D) mm
(projections not included)

Weight ..... Approx. 3.6 kg