Tone Parameter

Notes

- [tn] means "Tone Number". Ymf825 has a maximum of 16 tones.
- [op] means "FM Operator". Ymf825 has 4 operators per voice.

BO

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#0+30x[tn]	BO	"0"	"0"	"0"	"0"	"0"	"0"	BO1	BO0

Description

BO means Basic Octave. BO controls an octave setting.

- BO=0 : 2^1
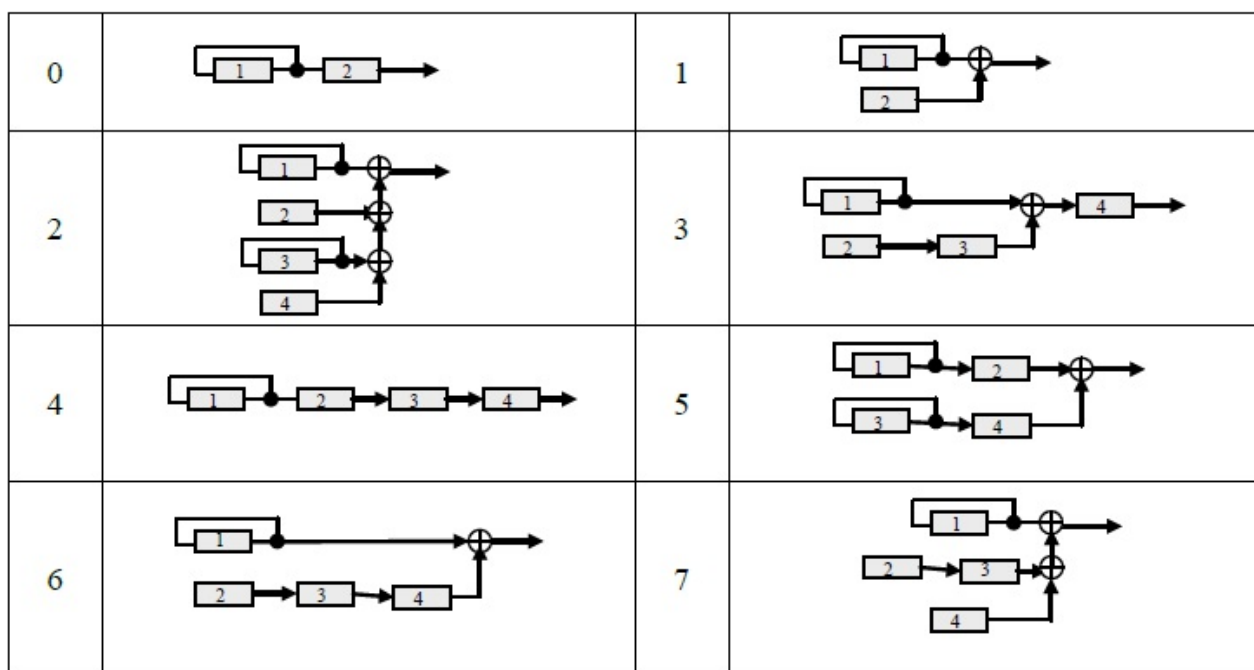- BO=1 : 2^0
- BO=2 : 2^{-1}
- BO=3 : 2^{-2}

LFO, ALG

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#1+30x[tn]	LFO,ALG	LFO1	LFO0	"0"	"0"	"0"	ALG2	ALG1	ALG0

Description

LFO means a frequency of low frequency oscillator.

- LFO=0 : 1.8Hz
- LFO=1 : 4.0Hz
- LFO=2 : 5.9Hz
- LFO=3 : 7.0Hz

ALG means FM Algorithm. 8 algorithms can be selected.

0	[1]→[2]→	1	[1], [2] → ⊕ →
2	[1],[2],[3],[4] → ⊕ →	3	[1]→⊕→[4]→ ; [2]→[3]
4	[1]→[2]→[3]→[4]→	5	[1]→[2]→⊕→ ; [3]→[4]
6	[1]→⊕→ ; [2]→[3]→[4]	7	[1]→⊕→ ; [2]→[3] ; [4]

SR, XOF, KSR

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#2+30x[tn]+7x[op]	SR, XOF, KSR	SR3	SR2	SR1	SR0	XOF	"0"	"0"	KSR

Description

SR controls sustain rate of each operator.
if SR is set to 0, sound level is retained.
XOF controls ignoring keyoff.
Evenif keyoff is set, any changes will not happen.
KSR means key scale sensitivity for AEG rate. if KSR bit is on, high F-num EG rate changes faster.

RR, DR

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#3+30x[tn]+7x[op]	RR,DR	RR3	RR2	RR1	RR0	DR3	DR2	DR1	DR0

Description

RR controls release rate of each operator.
DR controls decay rate of each operator.

AR, SL

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#4+30x[tn]+7x[op]	AR,SL	AR3	AR2	AR1	AR0	SL3	SL2	SL1	SL0

Description

AR controls attack rate of each operator.
SL controls sustain level of each operator. Sustain Level is the level just after decay rate.

TL, KSL

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#5+30x[tn]+7x[op]	TL,KSL	TL5	TL4	TL3	TL2	TL1	TL0	KSL1	KSL0

Description

TL means total level.TL controls operator level.

KSL means key scaling level sensitivity.In natural instruments, the volume attenuates as the pitch increases.KSL simulates this phenomenon.

- KSL=0 : 0
- KSL=1 : 3dB/oct
- KSR=2 : 1.5dB/oct
- KSR=3 : 6.0dB/oct

DAM, EAM, DVB, EVB

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#6+30x[tn]+7x[op]	DAM,EAM,DVB,EVB	"0"	DAM1	DAM0	EAM	"0"	DVB1	DVB0	EVB

Description

EAM means enable amplitude modulation.EAM set amplitude modulation.
DAM means amplitude modulation depth.

- DAM=0 : 1.3dB
- DAM=1 : 2.8dB
- DAM=2 : 5.8dB
- DAM=3 : 11.8dB

EVB means enable vibrato.EVB set vibrato.
DVB means vibrato depth.

- DVB=0 : 3.4cent
- DVB=1 : 6.7cent
- DVB=2 : 13.5cent
- DVB=3 : 26.8cent

MULTI, DT

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#7+30x[tn]+7x[op]	MULTI, DT	MULTI3	MULTI2	MULTI1	MULTI0	"0"	DT2	DT1	DT0

Description

MULTI controls magnification of frequency.

MULTI	0	1	2	3	4	5	6	7	8	9	10,11	12,13	14,15
magnification	1/2	1	2	3	4	5	6	7	8	9	10	12	15
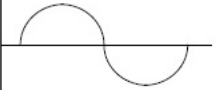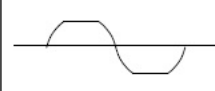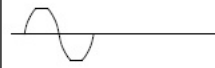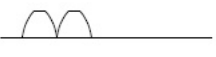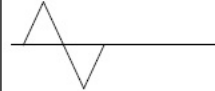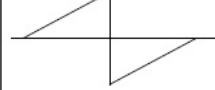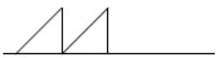
DT means detune.

WS, FB

T_ADR	Name	D7	D6	D5	D4	D3	D2	D1	D0
#8+30x[tn]+7x[op]	WS,FB		WS4	WS3	WS2	WS1	WS0	FB2	FB1	FB0

Description

WS means wave shape each operator generates.
29 wave shapes can be selected.

FB means FM feedback level.

- FB=0 : 0
- FB=1 : pi/16
- FB=2 : pi/8
- FB=3 : pi/4
- FB=4 : pi/2
- FB=5 : pi

- FB=6 : 2pi
- FB=7 : 4pi