



# HM9200

## CALL PROGRESS TONE DECODER & DIAL CONTROLLER

### General Description

HM9200 provides two operating modes to support a diverse application field:

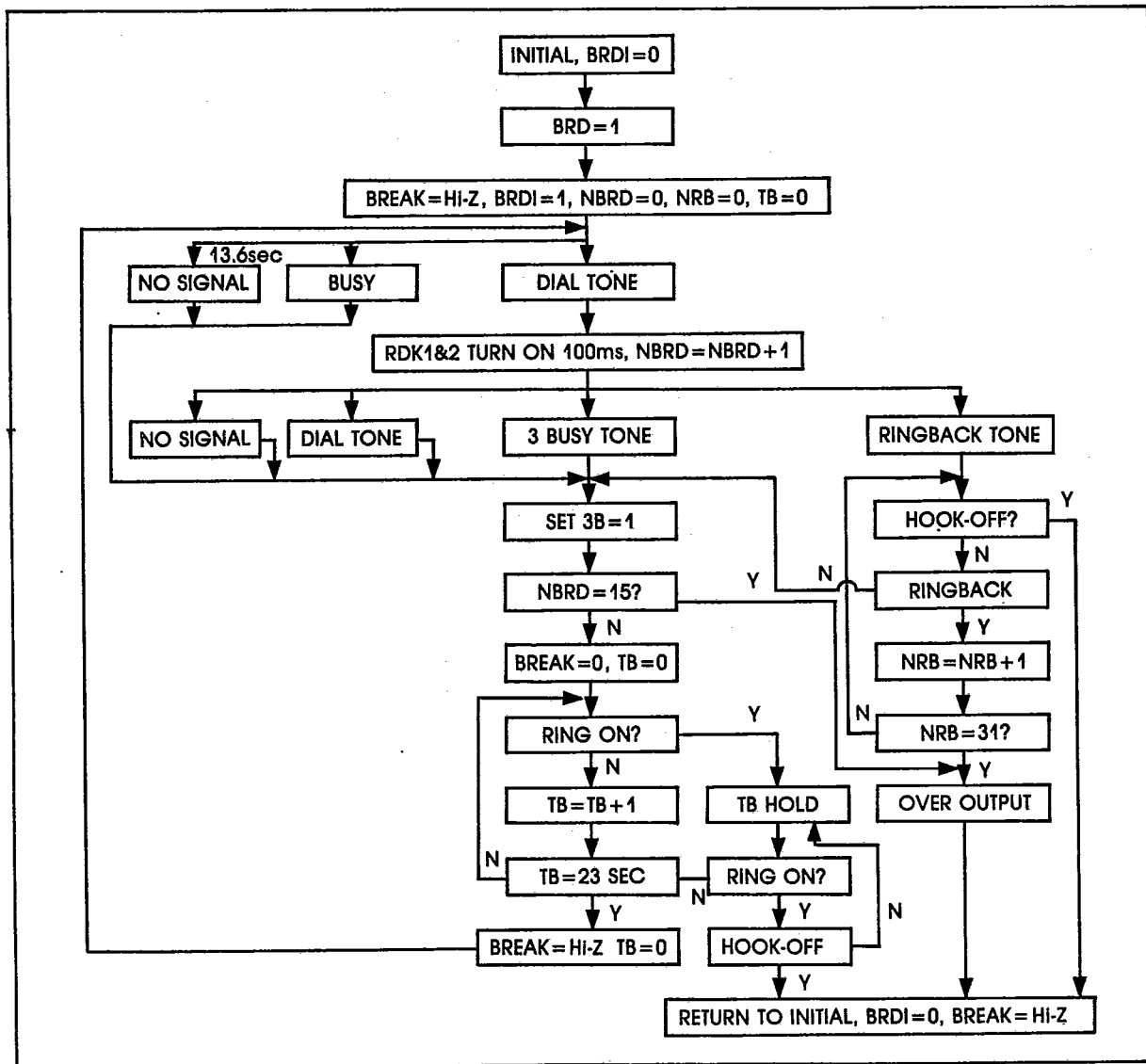
(1) Standard call progress tone decoder:

It detects the input signal of specifications and then outputs relative envelopes. By counting the transitions of envelope during the 2.27 sec. interval, the decoding circuit distinguishes what kind of tone input signal is. Three tri-state output pins (Bit 1, Bit 2 & Bit 3) indicate the presence of dial tone, ringback tone or busy/recorder tone respectively.

(2) Dial controller:

It implements busy redial function. With the decoded results, if busy, this chip forces dialer to break for 23 sec., then triggers the redial key after dial tone has been received. If the called party is still busy, the redial sequence will be repeated 15 times (or 10 times by mask option).

### Auto Busy Redial Flow Chart:





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### Features:

- Low cost 3.58MHz crystal or clock.
- Low power consumption.
- Full decoded tri-state call progress status output.
- Work with traditional, precision or PBX call progress tones.
- Logic compatible with TTL. CMOS. NMOS.
- Busy Redial function: repeated 10 or 15 times by mask option.
- Auto-terminate after 31 times (mask option) ringback tone has been received.
- Internal power on reset.

### Applications

- PABXs
- Modems
- Feature telephone
- Answering machine
- Billing systems

### Pin Assignment

HM9200

SIGNAL IN	1	18	V <sub>DD</sub>
V <sub>REF</sub>	2	17	DEC/CTRL
OSC IN	3	16	TRI/HOOK-OFF
OSC OUT	4	15	ENVELOPE/RING-ON
TEST	5	14	BIT1/RDK1
CLEAR	6	13	BIT2/RDK2
BRD	7	12	BIT3/BREAK
ENABLE	8	11	DATA VALID/BRDI
V <sub>SS</sub>	9	10	NC/OVER