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(54)	METHOD AND APPARATUS FOR
	INCOMING CALL REJECTION

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- (73) Assignee: Nokia Mobile Phones Ltd., Espoo (FI)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

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- (22) Filed: Dec. 16, 1998

Related U.S. Application Data

- (60) Provisional application No. 60/086,032, filed on May 19, 1998.
- (51) **Int. Cl.**⁷ **H04M 3/42** (52) **U.S. Cl.** **455/415**; 455/412; 455/567; 379/142

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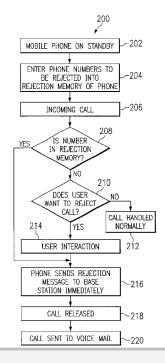
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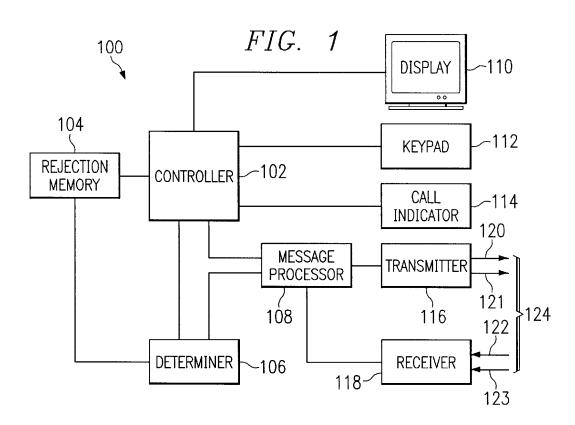
(57) ABSTRACT

A method and apparatus for rejecting incoming calls for use in a mobile communications device. The method and apparatus permit a user of a mobile communications device to automatically reject calls intended to be received by the device. In an exemplary embodiment, a rejection memory within the mobile device is preprogrammed with identification information representative of transmitting stations to be rejected. When a call is incoming, identification information included with the incoming call is compared with identification information contained in the rejection memory. When a match is detected, a rejection message is automatically sent by the mobile communications device to the transmitting station. Upon receipt of the rejection message, the transmitting station terminates the call and may reroute the call to a voice messaging system. Additionally, upon display of the identification information of an incoming call, the user may manually trigger the transmission of the rejection message from the mobile communications device.

15 Claims, 4 Drawing Sheets







300

MESSAGE TYPE	FEATURE DESCRIPTION	RECORD TYPE (BINARY)
FLASH WITH INFORMATION MESSAGE	FEATURE INDICATOR	0000010

FIG. 3a

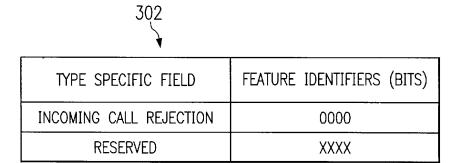


FIG. 3b



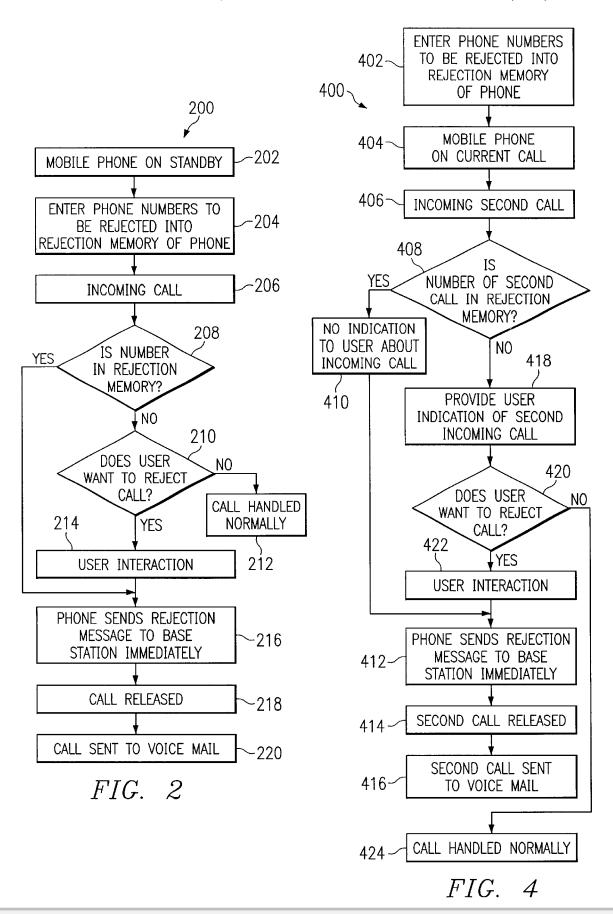


FIG. 5	503	500 500
MOBILE STATION	COMMUNICATION CHANNEL	502 BASE STATION
506	< PAGING, CHANNEL < 505	SENDS PAGE MESSAGE 504 508
SENDS ¹ PAGE RESPONSE MESSAGE	> ACCESS_CHANNEL > 507	SETS UP TRAFFIC CHANNEL
512	5 ₁ 1	BEGINS SENDING NULL, 509 TRAFFIC CHANNEL DATA
SETS UP TRAFFIC CHANNEL	< PAGING CHANNEL <	SENDS CHANNEL ASSIGNMENT, MESSAGE
RECEIVES N CONSECUTIVE VALID FRAMES \ 513	515	510 516
BEGIN SENDING TRAFFIC CHANNEL PREAMBLE	> REVERSE TRAFFIC > CHANNEL	ACQUIRES THE REVERSE \$537 TRAFFIC CHANNEL
514 519	< FORWARD TRAFFIC < 518 CHANNEL	SENDS BASE STATION / ACKNOWLEDGEMENT ORDER
BEGIN TRANSMITTING NULL TRAFFIC DATA 523	> REVERSE TRAFFIC > 520 CHANNEL	521
BEGIN PROCESSING PRIMARY TRAFFIC IN ACCORDANCE WITH SERVICE OPTION 1	< FORWARD TRAFFIC < CHANNEL \ 522	SENDS SERVICE OPTION RESPONSE ORDER
COMPARE ID TO 526 REJECTION MEMORY; 527	< FORWARD TRAFFIC < CHANNEL \ 525	SENDS ALERT WITH / INFORMATION MESSAGE (CALLER ID AND RING)
IF MATCH, THEN TRANSMIT REJECTION MESSAGE;	> REVERSE TRAFFIC >	RELEASE CALL ~529
IF NO MATCH, RING AND DISPLAY CALLER ID.	528 532	
IF USER "REJECT" INPUT DETECTED TRANSMIT \ REJECTION MESSAGE 531	> REVERSE TRAFFIC > CHANNEL	RELEASE CALL ~533
IF USER "ANSWER" INPUT DETECTED TRANSMIT CONNECT ORDER 534	> REVERSE TRAFFIC > CHANNEL \ 535	CONNECT CALL 536



601	603 /	600 602
601 MOBILE STATION	COMMUNICATION CHANNEL	BASE STATION
USER CONVERSATION WITH FIRST PARTY 604 610 COMPARE ID TO REJECTION MEMORY;	< FORWARD AND REVERSE TRAFFIC CHANNELS > 606 609 < FORWARD TRAFFIC < CHANNEL	USER CONVERSATION WITH FIRST PARTY \ 605 DETECTS INCOMING CALL 607 608 SENDS ALERT WITH / INFORMATION MESSAGE. (CALLER ID, CALL WAITING TONE)
IF (ID MATCHES)		
611 THEN; TRANSMIT REJECTION MESSAGE 614 ELSE; GIVE CALL WAITING TONE, DISPLAY ID INFORMATION	> REVERSE TRAFFIC > CHANNEL / 612	RELEASE CALL ~613
IF (DETECT USER MANUAL REJECT INPUT) 615 616 IF YES; / TRANSMIT REJECTION MESSAGE	617 > REVERSE TRAFFIC > CHANNEL	RELEASE CALL ~618
IF (DETECT USER REQUEST TO CHANGE PARTIES) 619 IF YES THEN; TRANSMIT FLASH WITH INFORMATION MESSAGE 620	621 > REVERSE TRAFFIC > CHANNEL FIG. 6	622 MUTE SPEECH PATH TO FIRST PARTY, CONNECTS SECOND PARTY.
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