



FIELD SERVICE BULLETIN

FSB Number: BJCCFSB2004-125
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Total No. Of Pages: 2
Subject: **GSM E398 MP3 distortion at low frequency**
Model Affected: GSM E398
Level of Repair: 1

Problem

During E398 Asia user trial, there is a potential issue with high risk, which is related to some downloaded MP3 ring tone distortion at very low frequency. The MFT(Multi-functional Transducers) audio was designed so that full scale MP3 audio would not be distorted at 2Vrms(2.8V peak). However, the MFT speaker itself is not ideal and will distort low frequency content near 157Hz (because of the vibrate feature). Citizen is the best but only supplier because no other supplier can meet the performance requirements of both speaker and vibrate functionality. The only thing that could be done is to do some wave shaping with the DSP while playing MP3 (attenuation at the low end), but this is dangerous because we have provided 20+ ringtones that have been optimized for the system.

Solution

There are no immediate plans to improve the MFT low frequency characteristics.

Short Term: Communicate to service agent that a few of downloaded MP3 with too low frequency content (near 157Hz) may cause MFT speakers distortion and should not to accept this as phone failure.

Long Term: Development Team is working with ASE team to investigate the feasibility of adding a notch filter at 157Hz.

Field Service Action

Customer Returns:

For E398 phones returned to Service Centre with the Customer Complaint of "Alert, Ring tone , noise / distortion", please verify with customer if ring tone distortion link to specific downloaded MP3 with too low frequency content.



a. If yes, then communicate with customer that it is not phone problem but the specific downloaded MP3 ring tone itself with too low frequency content. If turn on **vibe sync** at **initial setup** along with ring tone volume set too high, the specific MP3 may be distorted at too low frequency. To fix this problem, recommend customer to lower the ring tone volume or turn off **vibe sync** at **initial setup** to play such MP3 ring tone.

b. If No, then proceed with normal troubleshooting techniques as per the customer complaint.

Service Inventory:

N/A

Customer Call Center:

If the customer calls with the above mentioned symptoms, please refer to the above service action.

Service Entry Codes

Please ensure that repairs of this type are logged on to the applicable database as follows:

Global M-Claims Codes:

Customer Complaint Codes: ALT03 (Alert - Ring tone , noise / distortion)

Problem Found Code: ALT06 (Alert - Ring Tone, download)

REF Designator Code: N/A

Repair Code: RTU01 (No Repair Performed-Tested & Passed Spec)

PRC E-service Entry Codes:

Complaint Code: 1003 (Alert - Ring tone , noise / distortion)

Root Cause Code: 2201 (No Repair Performed-Tested & Passed Spec)