

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Miscellaneous Internal Communication Equipment**with type designation(s)
LC-600S Common battery telephone system

Issued to

Marine Radio Co., Ltd.
Busan, Republic of Korea

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft
IMO Res. A.694(17) General requirements for shipborne radio equipment forming part of the
global maritime distress and safety system (GMDSS) and for electronic navigational aids**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed**
by DNV GL.Issued at **Busan** on **2018-07-04**This Certificate is valid until **2023-07-03**.for **DNV GL**DNV GL local station: **Gimhae Station**Approval Engineer: **Geun Young Park**

Michael Jost Auf der Stroth
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Product description

The Common battery telephone system, LC-600S, consisting of following models:

Type	Model	Description	Location	
Desk type handset	LC-511*	Direct	Protected	
	LC-331*	3 selections		
	LC-612A	12 selections		
	LC-622A	24 selections		
Wall type handset	LC-513C*	Direct		
	LC-513F*	Direct with sub receiver		
	LC-513G*	Direct with headset		
	LC-333C*	3 selections		
	LC-333F*	3 selections with sub receiver		
	LC-333G*	3 selections with headset		
	LC-614A	12 selections		
	LC-614B	12 selections		
	LC-614C	12 selections		
	LC-614F	12 selections with sub receiver		
	LC-614G	12 selections with headset		
	LC-624A	24 selections		
	LC-624B	24 selections		
	LC-624C	24 selections		
	LC-624F	24 selections with sub receiver		
	LC-624G	24 selections with headset		
	Flush type handset	LC-515C*		Direct
LC-335A*		3 selections with dimmer switch		
LC-335C*		3 selections		
LC-616A		12 selections with dimmer switch		
LC-616C		12 selections		
LC-626A		24 selections with dimmer switch		
LC-626C		24 selections		
Portable type handset	LC-517*	Direct		
	LC-337*	3 selections		
	LC-618	12 selections		
	LC-628	24 selections		
Headset	MR-2000	Noise cancel type		
Junction Box	JB-6A, JB-6B, JB-8A, JB-8B, JB-9A, JB-9B			

Application/Limitation

- The system shall be installed in accordance with manufacturer's manual.
- Models marked with "*" do not comply with the requirement of back-up telephone in DNVGL Rules for classification of ships (2018 July) Pt.6 Ch.3 Sec.3
- The system shall be positioned more than 5 metres away from the magnetic compass.

Type Approval documentation

DNVGL No.	Document No.	Rev. No.	Title
2	KOMERI-0311-17T0643	-	IEC60945 EMC test report (Model No.LC-624G, LC-

Job Id: **262.1-025492-1**
Certificate No: **TAA00001UW**

			616A)
3	KOMERI-0314-17T0641	-	IEC60945 Temp. test report (Model No.LC-624G, LC-616A)
4	KOMERI-0602-17T0642	-	IEC60945 Vibration test report (Model No.LC-624G, LC-616A)
5	CBT_eng.doc	02	Manual for LC-600 Series Common Battery Telephone
6	MRC-2017TechLab-0515001	-	The declaration for the Salt Mist Test of IEC 60945, 8.12
7	A33042F1	3	Circuit drawing for common battery telephone
11	G04HS02001	Ori.	MR-2000 Headset Outline Drawing
13			Inter-unit connection for external bell/horn (IEC 60945 6.4)
14	MRC-2017LAB-171009		Performance test report for common battery telephone system
16	ICRT-TR-E180245		EMC Test Report (LC-618, LC-622A, JB-6A, JB-9B)
17	ICRT-TR-R180102-0A		Test Report for IEC60945 8.2, 8.3, 8.4 (LC-618, LC-622A, JB-6A, JB-9B)
18	ICRT-TR-R180101-0A		Test Report for IEC60945 8.7 (LC-618, LC-622A, JB-6A, JB-9B)

Tests carried out

- Environmental Test : IEC 60945(2002)
- Performance test : Performance tests for common battery telephone system

Marking of product

The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.