

Mr Steve Leigh
Programme Manager
Network Rail Telecoms
The Quadrant, Level 2 Caldecotte,
Elder Gate
Milton Keynes
Buckinghamshire
MK9 1EN

Your Ref : OP158365
R00022

Case Ref : PRM-IOP-0333

IN Number : As listed

Date: 13th October 2022

Contact: Adam Buckland
2 Rivergate,
Temple Quay,
Bristol.
BS1 6EH.

Dear Steve,

THE RAILWAYS (INTEROPERABILITY) REGULATIONS 2011, AS AMENDED UK TYPE AUTHORISATION OF GSM-R V4.0 FITTED TO THE VEHICLES LISTED IN THIS LETTER IN CONFORMITY WITH EUROPEAN REGISTER OF AUTHORISED TYPE REFERENCE 11-095-0001-5-001.

I refer to your application for authorisation against an approved type, received on 7th October 2022. Following a review of your application, I can confirm that ORR grants an authorisation under regulation 9 of the Railways (Interoperability) Regulations 2011, as amended.

This authorisation is for the placing in service of V4.0 GSM-R Cab Mobile sub system fitted with an interference resistant transceiver. In addition, there is an option to replace the current GSM-R antenna with a combined GSM-R/GPS antenna and to fit and additional LTE antenna.

- GSM-R Cab Mobile Type - GSM-R V4.0 Cab Mobile SVR400+ with NR4.0 software (Build 1127) which incorporate an ETSI TS 102 933 V 2.1.1 compliant transceiver.
- GSM-R/GPS antenna (Fitment of combined GSM-R/GPS antennae is optional)
 - Huber & Suhner – SWA-0825/360/5/30/DFRX30
 - Polomarconi – BGLD1/S
- LTE antenna (Fitment of LTE antennae is optional)
 - Huber & Suhner – SWA-0825/360/5/30/MIMO
 - Panorama Antennas – TRNM-7-60-NJ
 - Polomarconi – T01811814
 - Huber & Suhner – Sencity Rail MIMO Antenna 1399.17.0222

This conforms to European Register of Authorised Types (ERATV) type 11-095-0001-5-001.

It is noted that V4.0 GSM-R cab mobile build number, 1136, is included within this application. You have confirmed with your Approved Body that the two modifications in this build do not change either the GSM-R cab mobile software or related hardware on the train. This build is, therefore, considered by Network Rail and the manufacturer as a minor change with no part of the applicable National Technical Specification Notice (NTSN) or Technical Specification for Interoperability (TSI) being impacted. Therefore, it is considered that the initial determination of type remains unchanged.

I refer to your documents V4.0 GSM-R Cab Mobile Build 1136 Significance Decision, dated the 3rd September 2021 and the Letter of Assessment of Minor Change reference ACS9244 L02 dated the 30th July 2021.

This authorisation applies to the following inclusive.

Operator	Class	Vehicle	Cab	V4.0 Installation Date	IN
Arriva Rail London	710	710124	A	17/03/2022	UK/51/2021/0049
Arriva Rail London	710	710124	B	17/03/2022	UK/51/2021/0049
Arriva Rail London	710	710374	A	06/04/2022	UK/51/2021/0049
Arriva Rail London	710	710374	B	06/04/2022	UK/51/2021/0049
Arriva Rail London	710	710379	A	04/10/2022	UK/51/2021/0049
DB Cargo	66	66010	A	24/05/2022	UK/51/2020/0001
DB Cargo	66	66028	A	28/04/2022	UK/51/2020/0001
DB Cargo	66	66171	A	08/04/2022	UK/51/2020/0001
DRS	37	37606	A	31/03/2022	UK/51/2020/0015
DRS	57	57010	A	06/07/2022	UK/51/2020/0071
DRS	57	57012	A	18/05/2022	UK/51/2020/0071
GB Railfreight	60	60002	A	10/03/2022	UK/51/2020/0064
GB Railfreight	66	66734	A	15/04/2022	UK/51/2020/0001
GB Railfreight	69	69006	A	28/06/2022	UK/51/2021/0008
Greater Anglia	720	720105	A	19/05/2022	UK/51/2022/0006
Greater Anglia	720	720105	B	19/05/2022	UK/51/2022/0006
Greater Anglia	720	720106	A	19/09/2022	UK/51/2022/0006
Greater Anglia	720	720106	B	19/09/2022	UK/51/2022/0006
Greater Anglia	720	720109	A	06/10/2022	UK/51/2022/0006
Greater Anglia	720	720109	B	06/10/2022	UK/51/2022/0006

Greater Anglia	720	720506	A	26/06/2022	UK/51/2022/0006
Greater Anglia	720	720506	B	26/06/2022	UK/51/2022/0006
Greater Anglia	720	720511	A	07/06/2022	UK/51/2022/0006
Greater Anglia	720	720511	B	07/06/2022	UK/51/2022/0006
Greater Anglia	720	720512	A	11/09/2022	UK/51/2022/0006
Greater Anglia	720	720512	B	11/09/2022	UK/51/2022/0006
Greater Anglia	720	720514	A	14/06/2022	UK/51/2022/0006
Greater Anglia	720	720514	B	14/06/2022	UK/51/2022/0006
Greater Anglia	720	720515	A	19/07/2022	UK/51/2022/0006
Greater Anglia	720	720515	B	19/07/2022	UK/51/2022/0006
Greater Anglia	720	720520	A	20/07/2022	UK/51/2022/0006
Greater Anglia	720	720520	B	20/07/2022	UK/51/2022/0006
Greater Anglia	720	720521	A	20/03/2022	UK/51/2022/0006
Greater Anglia	720	720521	B	20/03/2022	UK/51/2022/0006
Greater Anglia	720	720523	A	28/05/2022	UK/51/2022/0006
Greater Anglia	720	720523	B	28/05/2022	UK/51/2022/0006
Greater Anglia	720	720524	A	18/04/2022	UK/51/2022/0006
Greater Anglia	720	720524	B	18/04/2022	UK/51/2022/0006
Greater Anglia	720	720526	A	24/03/2022	UK/51/2022/0006
Greater Anglia	720	720526	B	24/03/2022	UK/51/2022/0006
Greater Anglia	720	720528	A	02/05/2022	UK/51/2022/0006
Greater Anglia	720	720528	B	02/05/2022	UK/51/2022/0006
Greater Anglia	720	720532	A	16/03/2022	UK/51/2022/0006
Greater Anglia	720	720532	B	16/03/2022	UK/51/2022/0006
Greater Anglia	720	720536	A	30/05/2022	UK/51/2022/0006
Greater Anglia	720	720536	B	30/05/2022	UK/51/2022/0006
Greater Anglia	720	720537	A	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720537	B	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720540	A	19/09/2022	UK/51/2022/0006
Greater Anglia	720	720540	B	20/09/2022	UK/51/2022/0006
Greater Anglia	720	720545	A	05/04/2022	UK/51/2022/0006
Greater Anglia	720	720545	B	05/04/2022	UK/51/2022/0006
Greater Anglia	720	720546	A	28/05/2022	UK/51/2022/0006
Greater Anglia	720	720546	B	27/05/2022	UK/51/2022/0006
Greater Anglia	720	720547	A	27/06/2022	UK/51/2022/0006
Greater Anglia	720	720547	B	27/06/2022	UK/51/2022/0006
Greater Anglia	720	720549	A	23/07/2022	UK/51/2022/0006
Greater Anglia	720	720549	B	23/07/2022	UK/51/2022/0006
Greater Anglia	720	720553	A	18/07/2022	UK/51/2022/0006

Greater Anglia	720	720553	B	18/07/2022	UK/51/2022/0006
Greater Anglia	720	720554	A	16/07/2022	UK/51/2022/0006
Greater Anglia	720	720554	B	16/07/2022	UK/51/2022/0006
Greater Anglia	720	720555	A	23/05/2022	UK/51/2022/0006
Greater Anglia	720	720555	B	23/05/2022	UK/51/2022/0006
Greater Anglia	720	720558	A	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720558	B	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720560	A	11/03/2022	UK/51/2022/0006
Greater Anglia	720	720560	B	11/03/2022	UK/51/2022/0006
Greater Anglia	720	720565	A	07/03/2022	UK/51/2022/0006
Greater Anglia	720	720565	B	07/03/2022	UK/51/2022/0006
Greater Anglia	720	720569	A	11/04/2022	UK/51/2022/0006
Greater Anglia	720	720569	B	11/04/2022	UK/51/2022/0006
Greater Anglia	720	720570	A	24/06/2022	UK/51/2022/0006
Greater Anglia	720	720570	B	24/06/2022	UK/51/2022/0006
Greater Anglia	720	720573	A	17/07/2022	UK/51/2022/0006
Greater Anglia	720	720573	B	17/07/2022	UK/51/2022/0006
Greater Anglia	720	720576	A	05/04/2022	UK/51/2022/0006
Greater Anglia	720	720576	B	05/04/2022	UK/51/2022/0006
Greater Anglia	720	720578	A	04/04/2022	UK/51/2022/0006
Greater Anglia	720	720578	B	04/04/2022	UK/51/2022/0006
Greater Anglia	720	720580	A	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720580	B	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720585	A	18/05/2022	UK/51/2022/0006
Greater Anglia	720	720585	B	18/05/2022	UK/51/2022/0006
Greater Anglia	720	720587	A	09/03/2022	UK/51/2022/0006
Greater Anglia	720	720587	B	09/03/2022	UK/51/2022/0006
Greater Anglia	720	720588	A	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720588	B	17/03/2022	UK/51/2022/0006
Greater Anglia	720	720589	A	30/03/2022	UK/51/2022/0006
Greater Anglia	720	720589	B	30/03/2022	UK/51/2022/0006
Merseyrail	777	777003	A	12/04/2022	UK/51/2022/0005
Merseyrail	777	777003	B	29/03/2022	UK/51/2022/0005
Merseyrail	777	777004	A	21/07/2022	UK/51/2022/0005
Merseyrail	777	777004	B	21/07/2022	UK/51/2022/0005
Merseyrail	777	777005	A	29/03/2022	UK/51/2022/0005
Merseyrail	777	777005	B	29/03/2022	UK/51/2022/0005
Merseyrail	777	777006	A	28/07/2022	UK/51/2022/0005
Merseyrail	777	777006	B	28/07/2022	UK/51/2022/0005

Merseyrail	777	777007	A	07/05/2022	UK/51/2022/0005
Merseyrail	777	777007	B	07/05/2022	UK/51/2022/0005
Merseyrail	777	777008	A	10/08/2022	UK/51/2022/0005
Merseyrail	777	777008	B	10/08/2022	UK/51/2022/0005
Merseyrail	777	777009	A	10/05/2022	UK/51/2022/0005
Merseyrail	777	777009	B	10/05/2022	UK/51/2022/0005
Merseyrail	777	777012	A	09/08/2022	UK/51/2022/0005
Merseyrail	777	777012	B	09/08/2022	UK/51/2022/0005
Merseyrail	777	777013	A	18/05/2022	UK/51/2022/0005
Merseyrail	777	777013	B	18/05/2022	UK/51/2022/0005
Merseyrail	777	777014	A	15/08/2022	UK/51/2022/0005
Merseyrail	777	777014	B	15/08/2022	UK/51/2022/0005
Merseyrail	777	777015	A	02/05/2022	UK/51/2022/0005
Merseyrail	777	777015	B	02/05/2022	UK/51/2022/0005
Merseyrail	777	777049	A	28/04/2022	UK/51/2022/0005
Merseyrail	777	777049	B	28/04/2022	UK/51/2022/0005
Northern Trains Ltd	150	150004	A	22/04/2022	UK/51/2021/0009
Northern Trains Ltd	150	150004	B	22/04/2022	UK/51/2021/0009
Northern Trains Ltd	150	150005	A	22/04/2022	UK/51/2021/0009
Northern Trains Ltd	150	150005	B	22/04/2022	UK/51/2021/0009
Northern Trains Ltd	150	150006	A	22/04/2022	UK/51/2021/0009
Northern Trains Ltd	150	150006	B	22/04/2022	UK/51/2021/0009
Rail Operations Group	319	319011	A	07/03/2022	UK/51/2020/0053
Rail Operations Group	319	319011	B	07/03/2022	UK/51/2020/0053
Rail Operations Group	319	319377	A	08/03/2022	UK/51/2020/0053
Rail Operations Group	319	319377	B	08/03/2022	UK/51/2020/0053
Royal Scot Trust	98	98824	A	16/03/2022	UK/51/2020/0017
ScotRail	385	385107	A	07/03/2022	UK/51/2021/0058
ScotRail	385	385107	B	07/03/2022	UK/51/2021/0058
South Western Railway	701	701003	A	28/07/2022	UK/51/2020/0060
South Western Railway	701	701014	A	29/06/2022	UK/51/2020/0060
South Western Railway	701	701014	B	29/06/2022	UK/51/2020/0060
South Western Railway	701	701017	A	18/04/2022	UK/51/2020/0060
South Western Railway	701	701031	B	12/05/2022	UK/51/2020/0060
South Western Railway	701	701042	A	02/04/2022	UK/51/2020/0060
South Western Railway	701	701042	B	02/04/2022	UK/51/2020/0060
South Western Railway	701	701044	A	08/03/2022	UK/51/2020/0060
South Western Railway	701	701045	A	23/03/2022	UK/51/2020/0060
South Western Railway	701	701045	B	21/03/2022	UK/51/2020/0060

South Western Railway	701	701046	B	03/04/2022	UK/51/2020/0060
South Western Railway	701	701047	A	05/05/2022	UK/51/2020/0060
South Western Railway	701	701047	B	27/04/2022	UK/51/2020/0060
South Western Railway	701	701048	A	10/08/2022	UK/51/2020/0060
South Western Railway	701	701048	B	22/05/2022	UK/51/2020/0060
South Western Railway	701	701049	A	15/06/2022	UK/51/2020/0060
South Western Railway	701	701049	B	09/06/2022	UK/51/2020/0060
South Western Railway	701	701050	A	29/06/2022	UK/51/2020/0060
South Western Railway	701	701050	B	22/06/2022	UK/51/2020/0060
South Western Railway	701	701051	A	22/07/2022	UK/51/2020/0060
South Western Railway	701	701051	B	14/07/2022	UK/51/2020/0060
South Western Railway	701	701052	A	19/08/2022	UK/51/2020/0060
South Western Railway	701	701052	B	16/08/2022	UK/51/2020/0060
South Western Railway	707	707015	A	29/09/2022	UK/51/2021/0022
South Western Railway	707	707015	B	22/09/2022	UK/51/2021/0022
South Western Railway	707	707022	A	27/09/2022	UK/51/2021/0022
South Western Railway	707	707022	B	18/09/2022	UK/51/2021/0022
Southeastern	707	707003	A	31/08/2022	UK/51/2021/0022
Southeastern	707	707003	B	31/08/2022	UK/51/2021/0022
Southeastern	707	707004	A	08/08/2022	UK/51/2021/0022
Southeastern	707	707004	B	08/08/2022	UK/51/2021/0022
Southeastern	707	707005	A	19/08/2022	UK/51/2021/0022
Southeastern	707	707005	B	19/08/2022	UK/51/2021/0022
Southeastern	707	707008	A	11/08/2022	UK/51/2021/0022
Southeastern	707	707009	A	25/08/2022	UK/51/2021/0022
Southeastern	707	707009	B	25/08/2022	UK/51/2021/0022
Telford Steam Railway	142	142004	A	28/03/2022	UK/51/2021/0061
Telford Steam Railway	142	142004	B	28/03/2022	UK/51/2021/0061
Telford Steam Railway	142	142058	A	28/03/2022	UK/51/2021/0061
Telford Steam Railway	142	142058	B	28/03/2022	UK/51/2021/0061
Telford Steam Railway	144	144013	A	28/03/2022	UK/51/2021/0066
Telford Steam Railway	144	144013	B	28/03/2022	UK/51/2021/0066
TransPennine Express	12	12802	A	28/03/2022	UK/51/2022/0001
Transport for Wales	153	153968	A	18/05/2022	UK/51/2021/0024
Transport for Wales	82	82220	A	08/03/2022	UK/51/2020/0044

The restrictions or limitations of use on the structural subsystem are those referenced in the Determination of Type.

The rolling stock subsystem authorised by this letter must be operated and maintained in accordance with Regulation 20.

You should be aware that any future modifications to the authorised subsystem may constitute a 'renewal' or an 'upgrade' as defined in Regulation 2. If a project entity, in relation to the project, considers that the modification meets either of these definitions they may apply, in accordance with the provisions of Regulation 13, to the Department for Transport (DfT) for a decision on whether a new authorisation will be required. Should DfT decide that an authorisation is not required they must consult with ORR whether authorisation is required on safety grounds.

As the project entity you are responsible for retaining the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem, keeping them up to date and making them available to the ORR in accordance with Regulation 19.

If you are not the owner of the authorised subsystem you shall within 60 days, in accordance with Regulation 19(3), transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the owner of the subsystem and the owner shall then be regarded as the project entity. If the owner, in accordance with Regulation 19(4), disposes of his interest in the authorised subsystem, he shall within 60 days of the disposal transfer the declaration of conformity to an authorised type of railway vehicle, documentation recording any alterations, and maintenance manuals in relation to the subsystem to the person acquiring that interest and that person shall be regarded as the project entity.

Please note that under Regulation 36, the person who applied for the authorisation shall send particulars to the Registration Entity to enable the registration entity to enter the information on the National Vehicle Register. This will include such further information as the registration entity may reasonably require set out in the relevant standard.

If you are the operator, may I remind you of the need to have adequate arrangements within your Safety Management System to control the risks associated with this rolling stock subsystem.

This decision letter will be published on ORR's website.

Yours sincerely



Steve Fletcher ORR Deputy Director, Railway Planning and Performance

Cc

James Le Grice Head of Interoperability, Safety and Standards DfT.

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David Galloway Head of Vehicle Compatibility, Network Rail.

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Ian Maxwell Head of Train Control Systems, ORR.