




Date: 13th March 2020

CERTIFICATE OF COMPLIANCE

| This certificate of compliance validates the following | | | |
|--|---|----------------------------|--|
| TEST REPORT NUMBER 'Assessment Reports' are not acceptable | 17/32300178 | CERTIFICATE NUMBER | APF-1361 |
| DATE OF ISSUE | 30 th /01/2017 | DATE OF ISSUE | 13 th /03/2020 |
| DATE OF EXPIRY | -- | DATE OF EXPIRY | 06 th /02/2021 |
| Manufacturer details | | | |
| NAME OF FACTORY / MANUFACTURER | OPTIMUS, S.A. | NAME OF THE BRAND | OPTIMUS |
| FACTORY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY) | CL BARCELONA,101 17003 GIRONA (ESPAÑA) | MODEL / NO | COMPACT SYSTEM |
| WEBSITE | http://www.optimusaudio.com | LOGO ON THE PRODUCT |  OPTIMUS |
| TEL | +34 972 203 300 | EMAIL | info@optimus.es |





| Product Details From Test Report | | Reference Test Report page NO |
|---|--|--|
| DESCRIPTION OF THE PRODUCT (TECHNICAL DETAILS FROM TEST REPORT, SUCH AS ACTUAL FIRE RATINGS/DIMENSIONS/THICKNESS/SENSITIVITY ETC) | <p>Voice Alarm Control and Indicating Equipment for Public Address and fire alarm & emergency systems, commercial reference "COMPACT SYSTEM", trademark OPTIMUS.</p> <p>Equipment with insulating enclosure and class I of protection against electrical shock.</p> <p>The tested system includes the following modules and options:</p> <ul style="list-style-type: none">COMPACT: modular IP audio matrix for Public Address & Voice Alarm System.COMPACT-E: System expansion unit.UMX-C16: Contacts card with 16 inputs and 4 outputs.UMX-EA3: 2 audio input card for priority and/or music with VOX control.UMX-2M3: 2 audio input card for BGM.UMX-2SA: 2 audio output card with amplifiers & speaker lines surveillance.UMX-MC6: Zones subdivision card (6) with backup functionalities.UMX-2SB1/2/3/4: Zones subdivision card (from 4 to 16) with individual music volume and surveillance/backup functionalities.DC700ETH: PA/VA remote console device & fireman's microphone.DA500D2: 2x500W power amplifier.DA500D4: 4x500W power amplifier.MS150: Unit of Power Supply SLAT certified EN54-4.ME200B: Built-in fireman's panel & microphone for COMPACT equipment.LC-XB12100P: PANASONIC batteries 12V 100Ah.Z-53CPR: enclosure for DC-700ETH equipment.Z-53DFC: circuit breaker for MS-150 batteries.Z-53DFA: circuit breaker for MS-150 main power supply.Z-53TC: individual power supply plug for MS-150.Z-50CF1: module for speaker line and ethernet connection.Z-50CF2: 230VAC input filter.C678CE2A: speaker line protection circuit for Z-50CF1.C678CE3A: ethernet protection circuit for Z-50CF1.IE-SW-BL08-8TX: WEIDMUELLER 8 port network switch.AR-18KEN54: 18 units rack cabinet with accessories for EN54-16 compliance.AR-27KEN54: 27 units rack cabinet with accessories for EN54-16 compliance.AR-37KEN54: 37 units rack cabinet with accessories for EN54-16 compliance.AR-42KEN54: 42 units rack cabinet with accessories for EN54-16 compliance. | 3 |





| TEST STANDARD (SUCH AS ASTM/BS EN/ DN ETC) | EN 54-16:2008: "Fire detection and fire alarm systems. Part 16: Voice alarm control and indicating equipment." | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| TEST DESCRIPTION | Construction and performance test of a voice alarm control and indicating equipment. | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPECIFICATION OF TEST SPECIMEN | <p>2 different samples have been used to perform the tests.</p> <p>The sample M/01 & M/02 are composed of the following elements:</p> <ul style="list-style-type: none"> ▪ PA/VA remote console device & fireman's microphone, DC700ETH ▪ RACK, AR-37KEN54 ▪ Modular IP audio matrix for Public Address & Voice Alarm System, COMPACT ▪ System expansion unit, COMPACT-E ▪ 2x500 power amplifier, DA500D2 ▪ 4x500 power amplifier, DA500D4 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TEST RESULT (SUCH AS PASSED CRITERIA___/ COMPLIED TO___/ DURATION___/OBSERVATION___/ETC) | <table border="1"> <thead> <tr> <th>Essential characteristics</th> <th>Clauses in this European Standard</th> <th>Mandated level(s) or class(es)</th> </tr> </thead> <tbody> <tr><td>General Requirements</td><td>4</td><td>PASS</td></tr> <tr><td>General Requirements For Indications</td><td>5</td><td>PASS</td></tr> <tr><td>The Quiescent Condition</td><td>6</td><td>PASS</td></tr> <tr><td>Reception and processing of fire signals</td><td>7.1</td><td>PASS</td></tr> <tr><td>Indication of the voice alarm condition</td><td>7.2</td><td>PASS</td></tr> <tr><td>Phased evacuation (option with requirements)</td><td>7.5</td><td>PASS</td></tr> <tr><td>Silencing of the voice alarm condition</td><td>7.6</td><td>PASS</td></tr> <tr><td>Reset of the voice alarm condition</td><td>7.7</td><td>PASS</td></tr> <tr><td>Voice alarm condition output (option with requirements)</td><td>7.9</td><td>PASS</td></tr> <tr><td>Fault Warning Conditions</td><td>8</td><td>PASS</td></tr> <tr><td>Voice Alarm Manual Control</td><td>10</td><td>PASS</td></tr> <tr><td>Interface to External Control Device(s)</td><td>11</td><td>PASS</td></tr> <tr><td>Emergency Microphone(s)</td><td>12</td><td>PASS</td></tr> <tr><td>Design Requirements</td><td>13</td><td>PASS</td></tr> <tr><td>Additional Design Requirements for Software Controlled VACIE</td><td>14</td><td>PASS</td></tr> <tr><td>Marking</td><td>15</td><td>PASS</td></tr> <tr><td>Output Power</td><td>16.4</td><td>PASS</td></tr> <tr><td>Signal-to-noise Ratio</td><td>16.5</td><td>PASS</td></tr> <tr><td>Frequency Response of VACIE Without Microphone(s)</td><td>16.6</td><td>PASS</td></tr> <tr><td>Frequency Response of VACIE With Microphone(s)</td><td>16.7</td><td>PASS</td></tr> <tr><td>Cold (Operational)</td><td>16.8</td><td>PASS</td></tr> <tr><td>Damp, Heat, Steady State (Operational)</td><td>16.9</td><td>PASS</td></tr> <tr><td>Damp, Heat, Steady State (Endurance)</td><td>16.10</td><td>PASS</td></tr> <tr><td>Impact (Operational)</td><td>16.11</td><td>PASS</td></tr> <tr><td>Vibration, Sinusoidal (Operational)</td><td>16.12</td><td>PASS</td></tr> <tr><td>Vibration, Sinusoidal (Endurance)</td><td>16.13</td><td>PASS</td></tr> <tr><td>Supply Voltage Variation (Operational)</td><td>16.14</td><td>PASS</td></tr> <tr><td>Electromagnetic Compatibility (EMC), Immunity tests (Operational)</td><td>16.15</td><td>PASS</td></tr> </tbody> </table> | Essential characteristics | Clauses in this European Standard | Mandated level(s) or class(es) | General Requirements | 4 | PASS | General Requirements For Indications | 5 | PASS | The Quiescent Condition | 6 | PASS | Reception and processing of fire signals | 7.1 | PASS | Indication of the voice alarm condition | 7.2 | PASS | Phased evacuation (option with requirements) | 7.5 | PASS | Silencing of the voice alarm condition | 7.6 | PASS | Reset of the voice alarm condition | 7.7 | PASS | Voice alarm condition output (option with requirements) | 7.9 | PASS | Fault Warning Conditions | 8 | PASS | Voice Alarm Manual Control | 10 | PASS | Interface to External Control Device(s) | 11 | PASS | Emergency Microphone(s) | 12 | PASS | Design Requirements | 13 | PASS | Additional Design Requirements for Software Controlled VACIE | 14 | PASS | Marking | 15 | PASS | Output Power | 16.4 | PASS | Signal-to-noise Ratio | 16.5 | PASS | Frequency Response of VACIE Without Microphone(s) | 16.6 | PASS | Frequency Response of VACIE With Microphone(s) | 16.7 | PASS | Cold (Operational) | 16.8 | PASS | Damp, Heat, Steady State (Operational) | 16.9 | PASS | Damp, Heat, Steady State (Endurance) | 16.10 | PASS | Impact (Operational) | 16.11 | PASS | Vibration, Sinusoidal (Operational) | 16.12 | PASS | Vibration, Sinusoidal (Endurance) | 16.13 | PASS | Supply Voltage Variation (Operational) | 16.14 | PASS | Electromagnetic Compatibility (EMC), Immunity tests (Operational) | 16.15 | PASS | 17/32300178 |
| Essential characteristics | Clauses in this European Standard | Mandated level(s) or class(es) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| General Requirements | 4 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| General Requirements For Indications | 5 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| The Quiescent Condition | 6 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reception and processing of fire signals | 7.1 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Indication of the voice alarm condition | 7.2 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phased evacuation (option with requirements) | 7.5 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silencing of the voice alarm condition | 7.6 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reset of the voice alarm condition | 7.7 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voice alarm condition output (option with requirements) | 7.9 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fault Warning Conditions | 8 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Voice Alarm Manual Control | 10 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interface to External Control Device(s) | 11 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Emergency Microphone(s) | 12 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Design Requirements | 13 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Additional Design Requirements for Software Controlled VACIE | 14 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Marking | 15 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Output Power | 16.4 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Signal-to-noise Ratio | 16.5 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Response of VACIE Without Microphone(s) | 16.6 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency Response of VACIE With Microphone(s) | 16.7 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cold (Operational) | 16.8 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Damp, Heat, Steady State (Operational) | 16.9 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Damp, Heat, Steady State (Endurance) | 16.10 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Impact (Operational) | 16.11 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration, Sinusoidal (Operational) | 16.12 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vibration, Sinusoidal (Endurance) | 16.13 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supply Voltage Variation (Operational) | 16.14 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Electromagnetic Compatibility (EMC), Immunity tests (Operational) | 16.15 | PASS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |





| Product Details From Test Report | | Reference Test Report page NO |
|---|---|-------------------------------|
| PRODUCT APPLICATION GUIDELINE (END USE) (CLEARLY STATE THE END USE WITH SPECIFIC APPLICATION, SUCH AS EXACT FIRE RATING/TO BE INSTALLED IN ___/TO BE INSTALLED AT ___/TO BE CONNECTED WITH ___/TO BE INSTALLED WITH ___ ETC ALONG WITH ANY WARNINGS SUCH AS NOT TO BE USED IN ___/NOT TO BE INSTALLED AT ___/ NOT TO BE INSTALLED WITH ___ ETC. | Fire detection and fire alarm systems. Part 16: Voice alarm control and indicating equipment. | 4 |

| Laboratory and Certification body details | | | |
|---|---|---|---|
| NAME OF CERTIFICATION BODY | Applus - LGAI Technological Center S.A. | NAME OF TEST FACILITY | Applus - LGAI Technological Center S.A. |
| CERTIFICATION BODY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY) | Campus UAB- Ronda de la Font del Carme s/n E-08193 Bellaterra, Barcelona, SPAIN | TEST FACILITY ADDRESS / REGION (STREET / TOWN / CITY / COUNTRY) | Campus UAB- Ronda de la Font del Carme s/n E-08193 Bellaterra, Barcelona, SPAIN |
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| ACCREDITED BY (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE CERTIFICATION BODY, ALONG WITH WEBSITE) | ENAC | ACCREDITED BY (NAME OF ACCREDITATION BODY WHICH ISSUED ACCREDITATION TO THE LABORATORY, ALONG WITH WEBSITE) | ENAC |
| AS PER (STANDARD TO WHICH THE CERTIFICATION BODY IS ACCREDITED TO) | UNE EN ISO/IEC 17065 | AS PER (STANDARD TO WHICH YOUR ORGANIZATION IS ACCREDITED TO) | UNE-EN ISO/IEC 17025 |
| VALIDITY (EXPIRY DATE OF CERTIFICATION BODY ACCREDITATION) | UNLIMITED | VALIDITY (EXPIRY DATE OF LABORATORY ACCREDITATION) | UNLIMITED |
| REFERENCE NUMBER: (CERTIFICATION BODY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE) | OC-P/009 | REFERENCE NUMBER: (THE LABORATORY ACCREDITATION REFERENCE NUMBER TO VERIFY ON THE ACCREDITOR'S WEBSITE) | Nº 9/LE776 Nº 9/LE894 Nº 9/LE895 Nº 9/LE1126 |
| CERTIFICATION MARK | | | |





(ENDORSEMENT) TO BE SIGNED BY MANUFACTURER

| | | | |
|--|--|-----------------------|--|
| NAME OF MANUFACTURER'S SIGNATORY | Joaquim Pla Olivé | SIGNATURE | |
| EMAIL / TEL | jpiao@optimus.es +34 972 20 33 00 | FACTORY OFFICIAL SEAL | |
| NOTES: I Undertake that all data and information provided are genuine and accurate | | | |

(ENDORSEMENT) TO BE SIGNED BY CERTIFICATION BODY

| | | | |
|--|--|----------------------------------|--|
| NAME OF CERTIFICATION BODY SIGNATORY | Xavier Ruiz Peña | SIGNATURE | |
| EMAIL / TEL | xavier.ruiz@applus.com +34 93 567 20 00 | CERTIFICATION BODY OFFICIAL SEAL | |
| NOTES: I Undertake that all data and information provided are genuine and accurate | | | |

ATTACHMENTS:

- COPY OF 'CERTIFICATE OF COMPLIANCE' ISSUED BY CERTIFICATION BODY (OLD OR NEW)

