FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH, LYMM

Summary Description of Proposed Works

Most Anglican churches now use audio visual equipment as part of their regular services. At St. Mary's, the PCC have agreed to the installation of a system that would be capable of meeting both the special requirements of our services and worship, and also the needs and restrictions of our church. It will also be capable of live streaming to allow members of the congregation who are unable to attend in person.

The system that has been chosen is one to be provided by Audio Works Ltd. which utilises a large projection screen mounted above the Chancel arch. The service and worship information will be projected onto the screen using a projector mounted at high level on the wall next to the siting of the control desk.

A pair of reference screens would be fitted to the chancel side of the front pillars. These would relay the projected information back to the platform and chancel. Ambient microphones would be mounted next to these screens to pick up the congregational singing and organ music. For the live streaming system, two cameras will be installed.

A control desk would be at rear of the Nave. This would be a lockable cabinet to house the control equipment and would offer a suitable control position.

Although not part of this faculty application, there will also be a limited upgrading of our sound system. The controls for both will be located within the control desk cabinet. It is anticipated that the majority of the cabling will be routed under the floor out of sight, following existing cable routes. The impact on the Church fabric and stonework will be minimal. The brackets holding up the projector, feedback screens and the live streaming cameras will be located in mortar rather than directly in the stone pillars.

The installation of this facility will be a significant step forward in the way that we do things in terms of the variety and capability of our services and in the way that we use our Church space. As well as being more welcoming for our community, these facilities will allow us to be more open to school participation and learning. Our existing choir will also benefit, as will community choirs. This capability will enable us to encourage the use of a wider variety of art forms within the Church and to promote the Christian message to a much wider field.

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

Standard Information

Most Anglican churches now use audio visual equipment as part of their regular services. At St. Mary's Church Lymm, The PCC agreed to the introduction and installation of an Audio-Visual system that would be capable of meeting both the special requirements of our services and variable worship and the needs and restrictions of our Church Building. It should also be capable of live streaming to allow members of the congregation who are unable to attend services in person to be part of services on-line enabling the church to extend its reach to people who would not otherwise be able to or wish to attend in person.

What we are doing

The system that has been chosen is one to be provided by Audio works Ltd. which utilises a large central twin motor projection screen mounted above the Chancel Arch. When required, the barrel of this screen would be lowered on wires, and then the fabric would lower out of the barrel providing the surface on which to project the images required for the service. When not in use the barrel of the screen would be parked at high level above/ behind the apex of the chancel arch, out of sight from the Nave. The screen is operated by a handheld wireless controller, that does not require any control cable routing to the screen.

The service and worship information will be projected onto the screen using a projector mounted at high level on a short arm from the wall between the arches above the rear pillar next to the siting of the AV control desk.

A pair of reference 43" screens would be fitted to the chancel side of the front stone pillars in the Church. These would be of such a size and installation that they will be obscured from view of the congregation in the Nave (by the pillars themselves) but would be of sufficient size to relay the projected information back to the platform and Choir in the Chancel. Ambient microphones would be mounted next to these screens to pick up the congregational singing and the organ music.

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

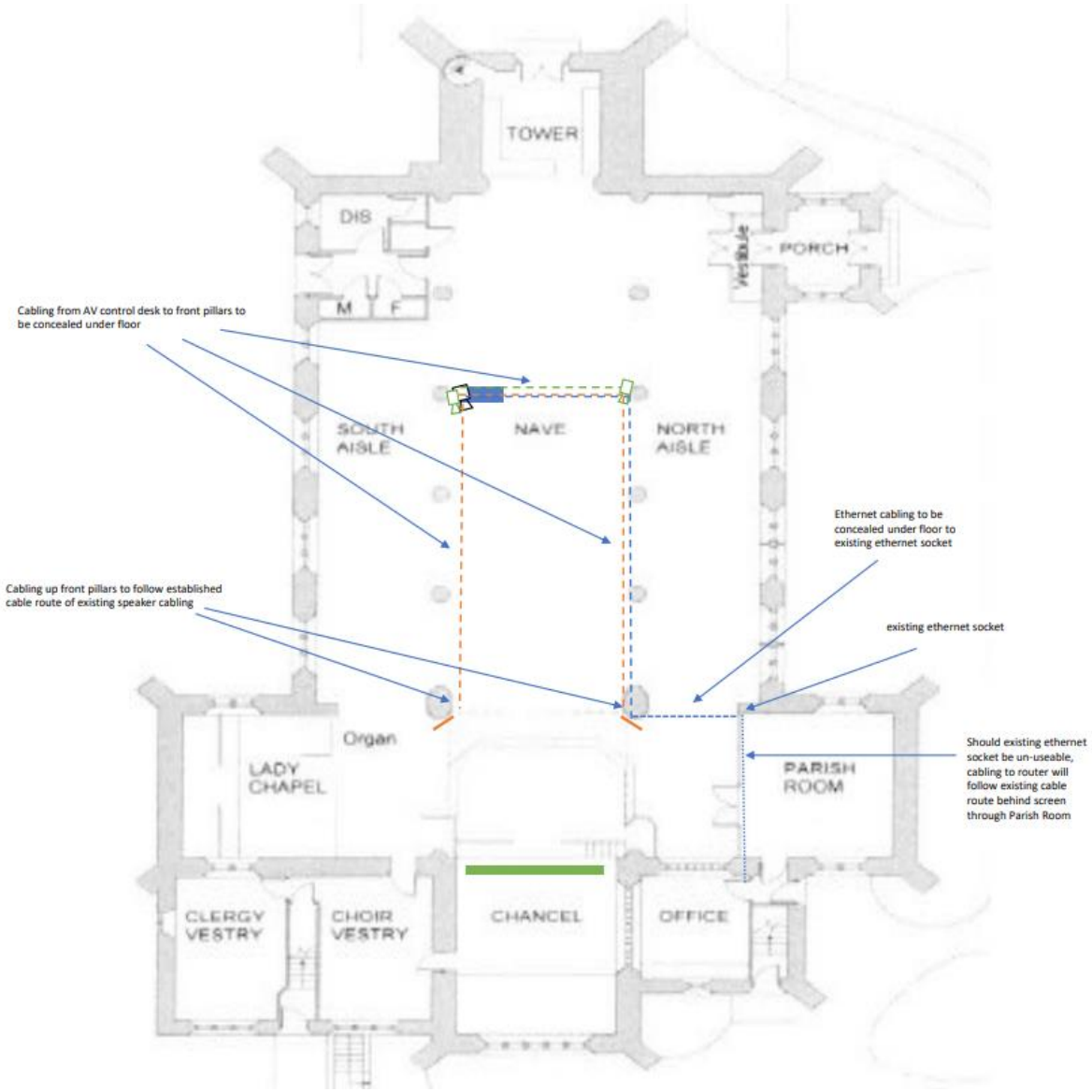
Illustration showing anticipated position of screen when in use. Note: not to scale.

Illustrations showing location of projector and projection screens relaying information back to the platform and Chancel.

For the live streaming system, two cameras will be installed, one a PTZ camera fitted just above the pillar capital on which the projector is supported and a smaller, fixed block camera fitted in the same position on the pillar on the opposite side of the church to provide an alternative view. These would be fitted using bespoke brackets fixed into the mortar joints around the pillar capitals.

An AV control desk would be in the rear pew on the South side of the Nave. The rear pew on the South side is currently loose and not fixed in position, so this would be replaced with a lockable cabinet to house the control equipment and would offer a suitable AV control position for operators to be able to sit without causing distraction to members of the congregation. The cabling to this equipment will be routed from the new AV control position to the Projector, cameras and to the internet router in the Parish (Fellowship) Room. Given the construction of the floor, which is a raised wooden platform, it is anticipated that the majority of the cabling will be routed under the floor out of sight but following existing cable routes. A drawing showing the positions and routing of the cabling is given below:

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM



FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

What equipment will it involve.

A list of all the equipment that would be required and used to achieve the assembly and installation is listed in the following Table. The installation and testing would be carried out by Audio Works Ltd. who have supplied the information below:

	Equipment Description
	3.5m wide 16:10 twin motor screen
	Mounting brackets for screen
	Epson EB-PU1007W projector with 7000 (8500?) ANSI lumens & Native WUXGA Resolution (Full HD) Laser Light source.
	Lens for projector
	Mounting bracket for projector
	HDMI over CAT6 cabling system for rear laptop input to projector.
	4 Button SY Electronics Keypad control Panel to turn projector on/ off
	Two 43" LG Displays for reference screens
	Two mounting brackets
	Two HDMI extender systems for screens to display the same image on these screens as the main screen.
	Blackmagic Design ATEM Mini Pro 4 input production switcher with built in streaming encoder.
	24" Iiyama monitor to provide a Multiview of all connected inputs along with preview/ program output.
	Lumens VCA52S PTZ Camera with 20x Optical zoom, Full HD, available in black or white.
	Mounting bracket for PTZ camera
	Lumens VSK20 joystick style controller for camera.
	SDI cabling to camera.
	Black Magic HD-SDI to HDMI converter.
	Two Audio-technica short nosed Line & Gradient Microphones
	Two mounting brackets for microphones.
	Sub-mixer to provide phantom power to ambient microphones.
	Connection from your existing sound system into live streaming system.
	CAT6 cabling
	HDMI interconnecting cabling.
	front HDMI connection point for visiting speakers to connect their laptops to.
	AV control desk cabinet to house the control equipment and to provide a space for operators to sit.
	wireless input to allow content to be displayed wirelessly from a mobile device

Various mains supplies would be required in different positions within the Church to power the items of equipment. These are to be installed and commissioned by a registered electrical contractor prior to the works commencing.

Where and how will the equipment be placed.

A summary description of the Audio-visual equipment and assembly has already been given above. The major equipment locations have been described and illustrated to show how the complete assembly is to be arranged within the Church and worship environment. It is anticipated that the location of the control desk cabinet will be as far back as practical on the South side of the central Nave where a loose pew has already been identified as the likely location.

Although not part of this faculty application, there will also be a limited upgrading of our sound system alongside the installation of this facility. This will be done on a 'new for old' basis for all our existing sound desk equipment and carried out during or shortly after the Audio-Visual installation. Both the Audio-Visual and the sound system control will be located within the Control desk cabinet. This will ensure good coordination between operators when using the systems and would ultimately take up less space.

As indicated previously the impact on the Church fabric and stonework will be minimal. The brackets holding up the Projector and the live streaming cameras will be located in mortar rather than directly in the stone pillars, this will also be the case for locating the two feedback screens on the two front pillars near the platform. All wiring will be located under the existing floor, avoiding the need to introduce any cabling channels in the floor.

It is anticipated that the supply and installation of the Audio-Visual system will be carried out by our supplier Audio Works Ltd. over successive days, avoiding weekends and special services to ensure that our weekly worship is not interrupted. The installation of this facility will be a significant step forward in the way that we do things in terms of the variety and capability of our services and in the way that we use our Church space on other days of the week. As well as being more welcoming for our community, these facilities will allow us to be more open to school participation and for the development of teaching and learning. Our existing choirs will also benefit, as will community choirs. This capability will enable us to encourage the use of a wider variety of art forms within the Church and to promote the Christian message to a much wider field of users.

Further details of the specification and photographs are available in Appendix 1.

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

Petition

The installation of this Audio-Visual System will deliver the following key benefits:

- Services which are more enjoyable and impactful
- A more inclusive environment where everyone can see and hear what is going on
- Improved engagement from all that are present
- Less use of printed material leading to environmental benefits
- Enabling the use of live-streaming and recording of services which will lead to greater levels of participation
- Modernise our facilities and enhance our worship, prayer and nurture, whilst presenting a professional image
- Facilitating the use of the church for a wide variety of community activities, thereby opening it up to a wider range of uses and users.

The Difference an Audio-Visual Facility can make

The PCC of St Mary's believe that including Audio Visual as part of our Worship and within our services will significantly enhance what we do and how we communicate ourselves and God's message through the Church. It will not only bring benefits in terms of organization and presentation (no books or service sheets to hand out) but also ensure that everyone can see what is coming next and feel that they are fully participating in whatever is happening (not having to find where they are in the service). Words of Hymns, prayers and verses can be displayed so that everyone can see them, as can notices, reminders, information about what is coming up or available within the Church in terms of support and prayer and how people can donate or get in touch.

The Audio Visual will also be a great teaching aid, it will not only help us with words, but also provide an opportunity to supplement the Homily with supporting bible text, reminders/ pictures to portray and demonstrate the message being put across. There will need to be some preparation for this but if done effectively it will add to whatever is being heard and hopefully stir people's thoughts and prayers about how they can get involved or make a difference. Overhead projection is a great way of stirring the heart and mind into thinking more deeply about what is being said.

The Audio-Visual facility can also be used to support Church services such as funerals, baptisms and weddings. The picture and life of a loved one who has passed away. The projection of a family bringing their child to baptism or having a wedding. All these offer additional opportunities to help the atmosphere and bring whatever is happening into context for those who are attending.

The Audio-Visual facility can also be used for teaching younger minds. Conveying pictures and ideas that young children will recognize could be a great aid at family services. We also anticipate that it will be used in our Messy Church activities and to help encourage participation and involvement, including the Experience Easter event.

We have several special services throughout the year (Christmas, Easter, Al Souls, Remembrance) and all of these will provide opportunities to use our Audio-visual facility to reinforce the message.

A further advantage of the Audio-Visual equipment is the ability to send the service out on-line into the community. This will not only promote our Church and its activities within the Parish and elsewhere but also allow those who would wish to come to our Church but are unable because of illness or disability to view our services and to participate in them from home. St Mary's has produced some service in the past which have been sent out on-line (via You Tube) but having this equipment will men that we can do this more often and consistently not just for specials - but for weekly services as well.

Once the system is installed, our church building will be the largest public space in Lymm with these facilities. The PCC wishes to develop St. Mary's as a community resource, used more widely by the broader community for concerts and other public events. Those who attend these events will be making a first connection with the church, providing an opportunity for further engagement which we can build upon.

Overall, the PCC of St Mary's Lymm consider the introduction of this facility will greatly enhance our worship and our ability to reach out into the community and to those who are looking to come and see what we are about. The PCC of St Mary's therefore greatly endorse this development ad would hope that following a successful faculty application will be able to introduce this equipment as soon as is practical.

Why the Audio-Visual System is needed

The village of Lymm is supported by several Churches (Baptist, Methodist, Catholic, two Anglican including ourselves, United Reformed, Life Church, etc.) and whilst Lymm has a significant population encouraging people and families through our Church doors is very difficult. This certainly is the case for younger families. There are many alternative opportunities within the village that attract Mums and Dads and their young children (Toddler groups, coffee groups, singing groups) and some of these are often run at the same time as our own outreach events which increases the difficulty. St Mary's is an active member of the Ecumenical life of the village managed by a 'Churches Together' group, indeed our Rector Reverend Beverly Jameson is a strong supporter of this being also the Ecumenical Officer for the Diocese of Chester. However, whilst we work together on joint services and

celebrations on many occasions there are overlaps which bring us into competition. There are also Churches within our village which have a lead on us in terms of how they present their worship. Overhead projection is something that has been used for some time in some of the Churches such as the local Baptist Church and they have a strong young and young family's participation. Whilst we would not expect to catch-them up' in terms of attracting such a congregation we would wish to make significant steps towards this and in encouraging some young families to come to St. Mary's.

Currently we have an aging congregation within our Church at St Mary's and although numbers reach around 30 to 35 each week the number of younger people that attend is very few and only occasionally. We no longer have a Sunday School largely because of the difficulties of encouraging families and hence recruiting Sunday School teachers.

Although most of our services are traditional Holy Communion services. We do offer other worship opportunities on a regular and occasional basis. Once a month we have a family service where we invite family participation and an opportunity for our Children's choir to sing within the service. The age of the children is between 4 to 11 years, which makes it necessary for the parents to attend with them. Whilst this does give opportunities for whole families to attend, the children's attendance is largely dependent on the availability and willingness of the parents to come rather than the children.

We also offer Celtic /Iona worship two or three times a quarter, which can be a Holy Communion or a Morning prayer service. The latter often includes drama and poetry as well as more modern hymns and songs. The congregation for these services is generally more senior. We also offer other services such as Taizé, healing services, evening prayer but again they are attended by more senior members of our congregation.

We hold Messy Church gatherings once a month during school term times which can bring younger families into the Church and whilst this does sometimes work for 'special' celebrations such as those around Mothering Sunday, Easter, Harvest, the numbers of families involved are not large.

We also participate with the local Schools, inviting them to become involved with our Church Life. In addition to our Ecumenical work with other Churches, we invite Lymm's Primary Schools to come into our Church to learn about Easter. This year we had around 300 children visit us through 'Experience Easter' to learn about Jesus and his message of Easter through involvement in several displays reminding them about the events and activities of Holy Week.

In addition to communicating and attracting younger families and children we also need to communicate effectively to our existing Congregation many of whom we feel would benefit from the Gospel message being presented to them in a different way.

They should not only be hearing what a difference Jesus makes but also seeing it through visual presentations and displays. Communicating the Gospel messages should not only be through word and song but also through seeing and understanding (visual) and an Audio-Visual facility within our Church will give us that additional 'vision' and step to be able to offer this. For this reason, the PCC of St Mary's feels that an Audio-Visual facility such as the one we are proposing will not only be an attraction but will also significantly advance for our outreach and communication capabilities to those who come through our doors.

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

Statement Of Significance

1. Brief history of the Church and its' setting

The Domesday Book shows that a church was on the present site of St Mary's in the 11th century, and it has since been rebuilt a number of times since. The present church was built in 1850-52 to a design by John Dobson of Newcastle. The nave and aisles from an older church dating from the 15th century were blown up with gunpowder prior to the rebuilding. Alterations and additions to the original plan were made to the church in 1870-72 by the Chester architect John Douglas, including an organ chamber and reredos. The original west tower was replaced by J. S. Crowther in 1888-90. The church was listed as a Grade II designated asset in 1950 and is in a Conservation Area.

St Mary's Church is set in a prominent elevated position above the A56 road (Church Road), which forms the northern boundary of the site, and within an extensive churchyard. The churchyard was legally closed on 5th September 2006, and responsibility for maintenance of the churchyard, the graves, monuments and boundary walls now rests with Warrington Borough Council. To the west and south of the churchyard and below it is Lymm Dam, an area of open water and woodland with paths open to the public, in the ownership of Warrington Borough Council. To the east is the Church Green public house. The main pedestrian path to the north porch entrance leads from a lychgate, beyond which is a surfaced hardstanding used as a car park, accessed from Church Road.

2. Description of the Church and Materials

The church is constructed from buff and red/ pink sandstone, with tooled square rubble masonry, coursed to the tower. The roof is covered with blue Welsh slate, with lead-lined gutters and cast iron rainwater goods. The Nave spans five bays with the Chancel to the east, with a 3-stage west tower with diagonal buttresses and embattled top, and north and south aisles and transepts. The north transept contains a meeting room and office, the south transept contains a lady chapel, organ keyboard and clergy and choir vestries. There are galleries with pews in the transepts above the lady chapel and meeting room, which are accessed externally from the east elevation via stone staircases. Glazing is a combination of leaded and stained glass, whilst external doors are hardwood with decorative ironmongery.

Internally, the Chancel has a panelled ceiling, and the nave arcades have octagonal stone pillars and arch-braced trusses to the roof. The trusses to the transepts are collar-beam. The stained-glass west window dates to 1853 and is possibly by David Evans, the east window to 1865, whilst the 3 south aisle windows dated 1851 are by Wailes and on the north aisle a window dating from 1897 by Kempe and another dating from about 1899 is probably by Shrigley and Hunt. The octagonal stone font in the south aisle probably dates from the 1660s. The plain panelled oak pulpit is from 1623, There is also an ogee-headed tomb recess in the south aisle dating from about 1322 that has been removed from the earlier church containing a "supposed" Roman altar. Memorials in the church include one to John Leigh of Oughtrington Hall (d. 1806), his wife (d.1819), and 2 tablets by E. H. Baily in the south transept to

members of the Fox family (d. 1830-45). Also a wooden memorial to William Domville of Lymm Hall (d.1686).

A Summary of the items of Significance within the Church is given in Table 1. This lists some of the main architectural features that remain within the current Church Building. As will be explained below, none of these will be affected by the introduction of the Audio-Visual equipment and assembly.

3. Assessment of Impact on Significance of the Church

St Mary's PCC has concluded that there will be no lasting impact of the Audio-Visual Assembly and equipment on the significance of the church building or its' special features. All work involved in the installation of the audio-visual system will be internal and designed to be reversible in the light of changing technologies.

The equipment includes a motorised screen which will be fitted behind the chancel arch, out of sight when not in use and all cabling will be surface mounted and therefore removeable if required. The projector and cameras will be fixed to the wall above the nave pillars using bespoke brackets, and the reference screens will be fixed to the pillars using bespoke brackets fixed into the mortar joints, not the stonework. The proposed bespoke control desk will be in wood to match the existing pews, and replace one rear pew, which will be stored for re-use if required.

Table 1 Summary of items of Significance within the Church

Description
Reredos of panels in bas relief on the east wall and stone sedilia, and a piscina in Decorated style (designed by John Douglas) on the South wall of the Sanctury
Carved Choir Stalls
Late 17th Century Pulpit dated 1673
Two wall paintings of 1906 on the north wall and of 1883 on the South wall of the Nave
Ogee-headed tomb recess from around 1322, which was moved from the older church. It contains a "supposed" Roman altar set in the South wall of the Nave
Various monumental tablets set into the walls of the Nave mainly early to mid19th Century and two older brass plates set on a pillar on the South side of the Nave.
Stained glass windows all mid to late 19th century except for one c1953 in traditional style
Various Corbels featuring heads and Angels
A Font positioned near the South wall of the Nave
Old Wardens Pews positioned at the west wall of the Nave
The War Memorials for 1914-18, 1939-45 and Northern Ireland on the West wall of the Nave.
Various Plaques on the walls of the Tower and 8 coats of Arms (Hatchments)
Photographs of Rectors for the last 100 years situated on the South Wall of the Tower.
Pews in the Nave and Lady Chapel made of Oak but with no outstanding features

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

Statement Of Need

1. St Mary's Congregation and the Parish Community

The church of St Mary the Virgin is the Parish Church of Lymm serving a worshipping community which seeks to nurture people in faith and to serve the needs of the wider community and Parish. The Church offers a range of services - Holy Communion (modern and traditional), Family Services, Celtic/Iona Services, evening worship (both traditional and modern) and special services. Generations of people have made St. Mary's the base for their own spiritual journey.

In addition to the weekly services St Mary's serves the community by offering baptisms, weddings and funerals. There is an annual service of Remembrance attended by The Royal British Legion and other uniformed organisations within the Lymm Community, an annual service of All Souls for those who have lost loved ones, Special Christmas and Easter Services and an annual Rush bearing service.

Attendance can vary depending on the service and the occasion and in 2023 the average weekly attendance was 34 adults and 2 children, with more attending Family Services (39 adults and 10 children) and considerably more attending the occasional and festive services. Numbers attending the annual Service of Remembrance each November, can reach 300-400 with many being uniformed young people.

In addition to formal services, the church is used weekly for rehearsals by its' adult choir, and by its' children's choir (drawn from the wider community) during term time. The children's choir sing at Family Services and on occasions such as the annual Community Christmas Tree Festival, which lasts 3 days and includes performances by local choirs, orchestras and schools. It is very popular with the Lymm community and has been held for many years. Visits to the church by local primary school children as part of religious education continue to be very popular, with Christmas carol concerts and Experience Easter (an interactive way of telling the Easter story) bringing over 300 children into the church. A monthly form of Messy Church (known as Create) has also been introduced on Saturdays at St Mary's, attended by children from the wider community and their parents. In addition, the church is also used by the local community for occasional concerts and events, for example a recent performance of the St John Passion by the Lymm and District Chorus was held in Holy Week.

All these examples of Community involvement and worship highlight the need for a modern more open and flexible approach to worship which meets the needs of today's generations. We believe that the introduction of an Audio-Visual System such as the one proposed will go a long way towards helping us to provide this and to offer a wide range of presentation and service options within our worship and community activities.

FACULTY APPLICATION BY THE PCC OF ST MARY'S CHURCH LYMM

2. Meeting the Needs of the Church and Community

On 5 November 2018 the PCC of St Mary's approved a Mission Statement and Aims in the following terms:

Mission Statement

St Marys is a worshipping community which seeks to nurture people in faith and serve the needs of the wider community through practical engagement.

Aims

1. To share the good news of Jesus Christ to people of all ages and backgrounds
2. To nurture and grow disciples in Jesus Christ
3. To be a Christian presence at the heart of the community in Lymm
4. To provide a resource for the community

Following the period of Covid lockdowns in 2020-22 certain needs of the worshipping congregation and the wider community using the church became apparent:

(a) Members who were unable to attend church services in person, through illness or for any other reason, had no means of seeing or joining in services. The church building has wi-fi, but there was no reliable way of streaming services to them or recording services for watching on the internet;
(b) The hymn books used in church were becoming worn and outdated, and increasingly hymns are being sung which are not in the book so that printed copies have to be handed out. Similarly, orders of service for the Family Service and occasional Celtic and Taize services have to be copied and handed out. Display of orders of service and hymns on a screen would greatly facilitate this;
(c) Use of the church building by community groups and schools for concerts, children's events and other occasions is restricted by the inability to display words or images during performances;
(d) Novel community uses of the church, such as suitable film shows, lectures and other gatherings, and even new forms of service, are not possible without some form of audio-visual system, so it is difficult to attract the wider community to the church.

3. Impact of the Audio-Visual System

The PCC has concluded that the above needs can be met by the installation of this new audio-visual system which enables text and images on a laptop to be projected onto a screen visible to the congregation, choir and celebrants, in a way that minimises visual intrusion into the current appearance of the church's interior. The PCC believes that the proposed system does this, as the large screen will be hidden behind the chancel arch when not in use. The system uses two monitor screens above the front pillars to project back to the choir which will not be visible to the congregation, and a projector and cameras that will be relatively small and affixed to the wall above the pillars, out of the line of sight of the congregation. The system will

also enable services or other events to be live streamed via the internet or made available in recorded form on the internet.

The PCC of St Mary's Lymm believe that the benefits of installing this audio-visual system will be a significant step forward in the worshipping and community life of the Church allowing much more flexibility and variability in presentation and organisation of services and worship and will be a facility that will enable us to reach out to all ages and the wider Community.

PUBLIC NOTICE

St Mary's Church Lymm

The PCC of St Mary's Lymm have agreed to the fitting and installation of Audio-Visual Equipment within St Mary's Church.

The Audio-Visual installation consists of a central large screen suspended from the central Arch of the Chancel which can be lowered when needed and raised out of sight when not.

As well as supporting our services this facility will enable St Mary's Church to film and offer services on-line to those who are unable to attend in person, and to further develop St. Mary's as a community resource.

A Faculty Application to the Diocese to support this installation has been made.

St Mary's Church PCC.

(PCC Secretary Derek Buckthorpe)

APPENDIX 1

SYSTEM SPECIFICATION
AND
FACT SHEETS

audioworks

Lewis Denton
St Mary's Church
Lymm

07-02-2024

Quote Ref: 01197/TP/1.2

Dear Lewis,

Thank you for asking us to carry out the work for you at St Mary's Church. Following our conversations, I have provided some information below to support your faculty application to the DAC.

Installation of Projection and Live Streaming System

A new visual and live streaming system is to be installed as per the quotation provided and as outlined below. The purpose of the visual system is to aid and enhance worship and the purpose of the live streaming system is to allow members of the congregation who are unable to attend services in person to be part of services on-line and also to allow the church to extend its reach to people who would not otherwise be able to or wish to attend in person. It is important that this is not done at a cost of distracting the congregation who are in the building from worship. The system that has been proposed has therefore been designed to provide simplicity in operation whilst offering the flexibility required.

The proposed system is to be installed in a manner that is in sympathy with the aesthetic of the building and as discretely as possible in order to minimise its impact upon the aesthetic of the building.

A twin motor projection screen would be mounted at high level behind the chancel arch. When required, the barrel of this screen would first lower on wires, and then the fabric would lower out of the barrel. When not in use, it is anticipated that the barrel of the screen would be parked at high level above/ behind the apex of the chancel arch, out of sight from the Nave. This is illustrated in the images below. This screen is operated by a hand held wireless controller so does not require any control cable routing to the screen.

A projector would be mounted on a short arm from the wall near to the bottom of the vertical wooden truss in the V shape between the arches above the rear pillar next to the AV control desk. The projector and the arm would be white.

A pair of reference pair of 43" reference screens would be fitted to the chancel side of the front stone pillars in church. These would be of such a size and installed in such a position that they were obscured from view of the congregation sat in the Nave by the pillars themselves. Ambient microphones would be mounted next to these screens in order to pickup the congregational singing and the organ.

Two cameras would be installed as part of the live streaming system, a PTZ camera would be fitted just above the pillar capital directly the projector and a smaller, fixed block camera fitted in the same position on the pillar on the opposite side of church. These would be fitted to bespoke brackets which it is anticipated could be fixed into the mortar joints around the pillar capitals.

A new AV control position would be established within the rear pew on the North side of the Nave as the existing sound system connection position is part way down the nave. This is not a suitable control position for the increased AV system as operators would be sat in the middle of the congregation meaning that part of the congregation would be behind them which would offer multiple distractions to those members of the congregation who were seated behind the AV control desk. The rear pew on the north side is currently loose and not fixed in position, so this would be replaced with a lockable cabinet to house the control equipment and would offer a suitable AV control position for operators to be able to sit without causing distraction to members of the congregation.

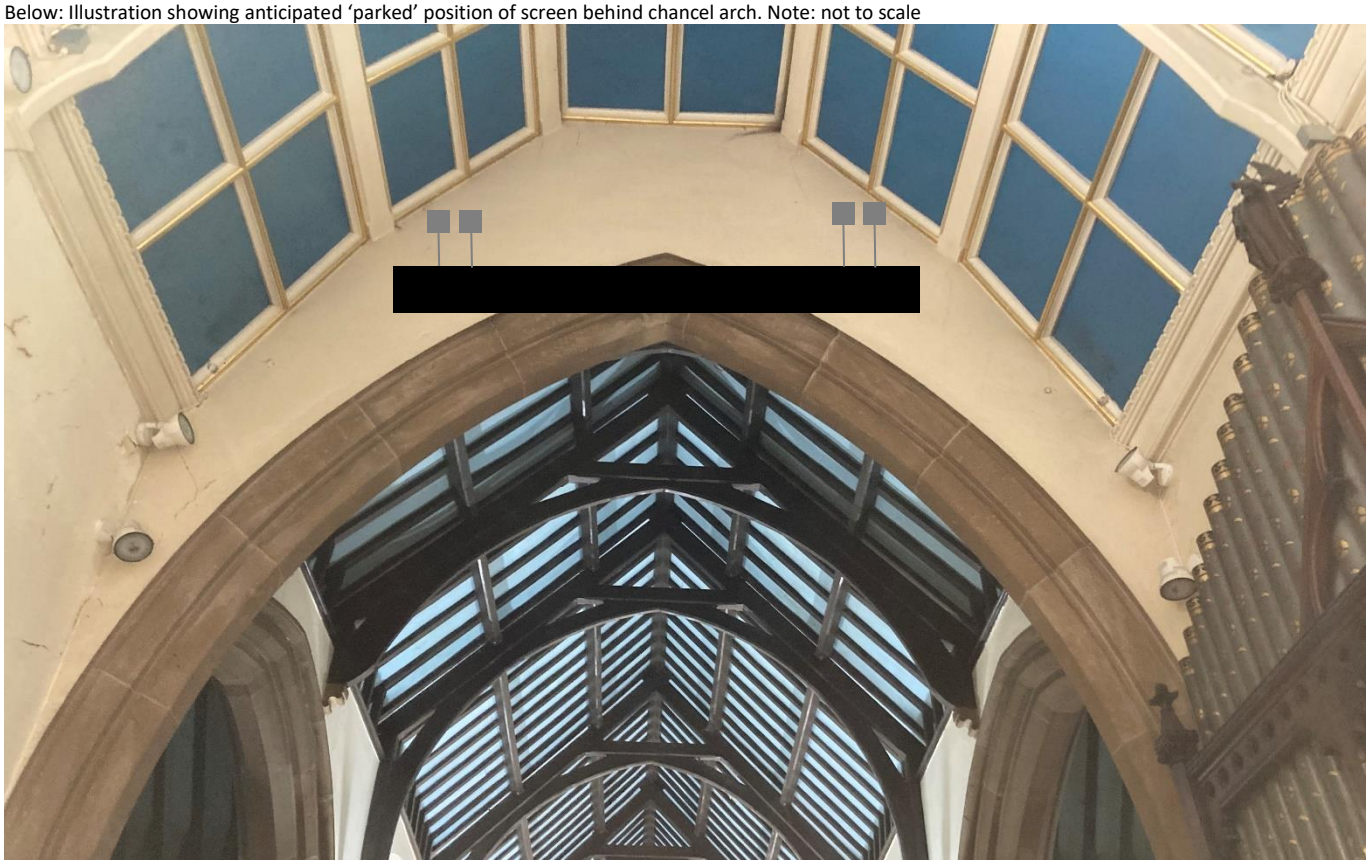
Cabling shall be routed from the new AV control position to the Projector, cameras and to the internet router in the office. Given the construction of the floor it is anticipated that the majority of the cabling can be routed under the floor out of sight and then following existing cable routes.

Our engineers have great experience of working within both Grade I and Grade II listed buildings and understand the need for all work to be carried out in a sensitive manner to the fabric of the building. Cabling shall be routed as discretely as possible and neatly fixed using either; glue, staples, P or cable clips, depending on which is deemed to be most appropriate for its location by the engineers on site. Each cable route shall be assessed individually prior to works commencing and the choice of colour for each cable shall be made by the engineers on site to be the most appropriate colour for the route which the cable takes. It is anticipated that the majority of the new cabling required for the new AV system can follow existing cable routes, either of existing sound system cabling, or of cabling for the lighting/ power systems.

Where equipment is to be fixed to the fabric of the building, this shall be done in a manner which is reversible should the need arise to remove the equipment in the future. Preference shall be given for fixing holes to be made in areas which are rendered meaning that holes can be made good should equipment be removed in the future. Where there is no other option that to fix to exposed stone, fixings shall, wherever possible, always be made into mortar joints. The majority of fixings shall be made using passive fixings, however it is anticipated that given the weight of the twin motor screen, the arm brackets for this shall be fixed using an active resin fix.

Above: Illustration showing anticipated position of screen when in use. Note: not to scale

Below: Illustration showing anticipated 'parked' position of screen behind chancel arch. Note: not to scale



Audioworks (NW) Ltd
Unit 2A, Bentham Business Park
Bentham, Lancaster, LA2 7NB

Tel/Fax: 015242 61628
VAT Reg. No. 698 6667 46
Company Reg. No. 5186126

Directors: Martin & Michelle Hodgson
www.audioworks.co.uk
info@audioworks.co.uk

audioworks

Cabling to screens to follow existing cable routes from under floor up pillars to speakers. Note: angle of photographs above do not show full extent of pillars and therefore cause screens to appear as though they will protrude beyond pillars. Please refer to layout plan for illustration of screen position

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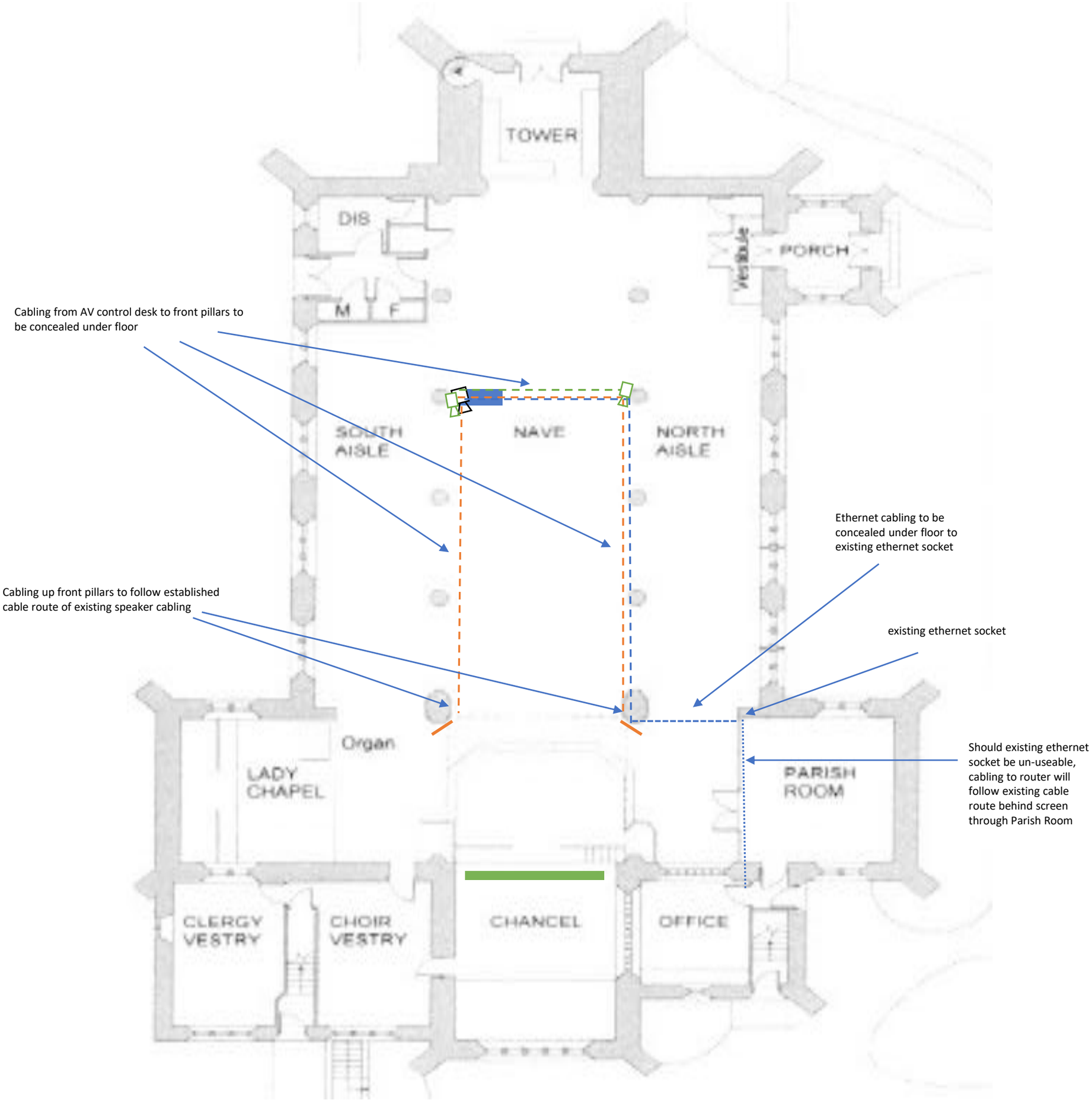
Above: Illustration showing proposed location of projector

Please note; any system designs, concepts or specifications laid out in this document are the intellectual property of Audioworks (NW) Ltd, and are intended for the attention of the person(s) named above only, and should not be passed to, or shared with, any other parties without the prior written permission of Audioworks (NW) Ltd. We are pleased to offer a consultancy service for the design of and advice about audiovisual systems should you require information to pass on to others. Please let me know if you would like details of this.

I hope the above is clear, please don't hesitate to contact me on 015242 61628 if you require further help or information.

Yours sincerely

Tim Parsons.
Project Manager
tim@audioworks.co.uk



audioworks

Audioworks (NW) Ltd
Unit 2a
Bentham Business Park
High Bentham
Lancaster
LA2 7NB
015242 61628

- Proposed location of AV control desk
- Proposed Location of Projector
- Proposed Camera Locations
- Proposed Location of Twin Motor screen
- Proposed Location of 43” Reference Monitors
- Anticipated route of cabling to monitors (concealed under floor)
- Anticipated route of cabling to Camera (concealed under floor)
- Anticipated route of ethernet cabling to router (concealed under floor)
- Anticipated route of ethernet cabling to router (following existing cable route round arch)

Client	St Mary’s Church, Lymm
Job Ref	01197/TP
Drawing	Proposed AV Layout
Drawn By	TP
Date	12.02.2024
Revision	A
Issue for:	
Quotation	
Approval	
Installation	
Information	

Not to scale

EB-PU1007W

DATASHEET / BROCHURE

KEY FEATURES

- **Compact and lightweight**
  Unobtrusive and easier to transport
- **Lens support**
  Supports a wide selection of Epson interchangeable lenses
- **Enhanced design**
  Clean, simple, and discreet design.
- **Image quality**
  7,000 lumens, 3LCD, WUXGA resolution with 4K enhancement
- **Advanced installation tools**
  A range of free software tools and an optional external camera module

The EB-PU1007W is a compact and versatile high brightness projector with optional interchangeable lenses and advanced installation features.

This highly versatile 7,000 lumens installation projector is sold as 'body only' and pairs seamlessly with Epson's existing lens family to deliver bright, true-to-life images in a wide variety of environments: from visitor attractions to lecture theatres, museums to meeting rooms. The high lumens EB-PU1007W offers WUXGA resolution with 4K enhancement, HDR and advanced installation features.

Superior image quality

The 7,000 lumens EB-PU1007W projects clear whites, vivid details, deep blacks, defined shadows and high contrast imagery.

Compact and lightweight

The compact size makes this projector more transportable and saves storage space, providing size and cost advantages to projector fleets. The unobtrusive design allows it to blend seamlessly into most environments. Also available in black.

Interchangeable lens support

The EB-PU1007W accommodates different lenses to suit a wide range of projection environments, including a zero-offset ultra-short-throw lens. Epson supplies the projector as 'body only', without a lens, which puts the power to build the right projection solution, for the right application, in the hands of the user.

Designed for installation agility

Produce large-scale, extremely bright displays, even as part of multi-projector installations where edge blending, stacking and lens flexibility is key. Epson Projector Professional Tool makes advanced installation techniques easy, such as projection mapping, while the optional external camera module (ELPEC01) uses built-in processing for PC-free geometry correction for stacking. The EB-PU1007W also features NFC for multi-projector set up, making diagnostics and installations easier using the Epson Projector Config Tool.

EPSON®

PRODUCT SPECIFICATIONS

TECHNOLOGY	
Projection System	3LCD Technology, RGB liquid crystal shutter
LCD Panel	0.76 inch with C2 Fine
IMAGE	
Color Light Output	7,000 Lumen- 4,900 Lumen (economy) In accordance with IDMS15.4
White Light Output	7,000 Lumen - 4,900 Lumen (economy) In accordance with ISO 21118:2020
Resolution	WUXGA
High Definition	4K enhancement
Aspect Ratio	16:10
Contrast Ratio	Over 2,500,000 : 1
Native Contrast	2,000 : 1
Light source	Laser
Laser Light source	20,000 hours Durability High, 30,000 hours Durability Eco
Keystone Correction	Manual vertical: ± 45 °, Manual horizontal ± 30 °
Colour Reproduction	Upto 1.07 billion colours
OPTICAL	
Throw Ratio	0.35 - 10.11:1
Zoom	Motorized
Lens Shift	varies by lens
Screen Size	varies by lens
Projection Distance Wide	)varies by lens
Projection Distance Tele	)varies by lens
Projection Lens F Number	varies by lens
Projection Lens Focal Length	varies by lens
Projection Lens Focus	Motorized
Interchangeable Lens	Yes
Standard Lens	Not included
CONNECTIVITY	
Interfaces	USB 2.0-A (2x), USB 2.0 Type B (Service Only), RS-232C, Ethernet interface (100 Base-TX / 10 Base-T), Wireless LAN IEEE 802.11a/b/g/n (optional), VGA in, DVI in, HDBaseT, Jack plug out, HDMI (HDCP 2.3), Near Field Communication (NFC), USB content playback, Remote
ADVANCED FEATURES	
Security	Kensington lock, Control panel lock, Padlock, Security cable hole, Wireless LAN unit lock, Wireless LAN security, Password protection
Other features	21:9 aspect ratio support, 4K enhancement, A/V mute, Auto Power On, Auto source search, Direct Power on/off, Edge Blending, Long light source life, OSD copy function, Point correction, Power on button, Quick Corner, Schedule Function, Super resolution, Web Control, Web Remote, iProjection App
Video Color Modes	Cinema, Dynamic, Natural, Presentation, DICOM SIM, Multi Projection, BT709
Projector control	via: Crestron Integrated Partner, Extron IP Link, Extron XTP, AMX Device Discovery
GENERAL	
Power consumption	358 Watt (Normal On-Mode), 431 Watt (Normal Peak-mode), 366 Watt (Eco Peak-Mode), 0.5 Watt (Energy saving standby)
Supply Voltage	AC 100 V - 240 V, 50 Hz - 60 Hz
Product dimensions	545 x 436 x 189 mm (Width x Depth x Height)
OTHER	
Warranty	36 months Carry in Optional warranty extension available

EB-PU1007W

WHAT'S IN THE BOX

- Remote control incl. batteries
- Power cable
- Cable cover
- Lens connector cap
- User's Manual Set
- Warranty Documents

EPSON®

OPTIONAL ACCESSORIES

- Adapter - ELPAP11 Wireless LAN (5GHz)
  V12H005A01
- Air Filter - ELPAF46
  V13H134A46
- Camera Unit - ELPEC01
  V12HA46010
- External Air Filter - ELPAF63 - EB-PU1000 Series
  V13H134AD0
- Ceiling Mount - ELPMB68
  V12H006AE0
- Portrait Adaptor - ELPMB69 - For ELPMB68
  V12H006AF0
- Extension Pole - ELPMB70 - For ELPMB68
  V12H006AG0
- Truss Adaptor - ELPMB71 - For ELPMB68
  V12H006AH0
- Stacking Frame - ELPMB76 - EB-PU1000 Series
  V12H006AN0

OPTIONAL LENSES

- Lens - ELPLL08 - Long throw - EB-PU Series
  V12H004L08
- Lens - ELPLM08 - Mid throw 1 - EB-PU1000 Series
  V12H004M08
- Lens - ELPLM10 - Mid throw 3 - EB-PU Series
  V12H004M0A
- Lens - ELPLM11 - Mid throw 4 - EB-PU Series
  V12H004M0B
- Lens - ELPLM15 - Mid throw - EB-PU Series
  V12H004M0F
- Lens - ELPLU03S - Short throw off axis 1 - EB-PU Series
  V12H004UA3
- Lens - ELPLU04 - Short throw off axis 2 - EB-PU Series
  V12H004U04
- Lens - ELPLW05 - Wide zoom 1 - EB-PU Series
  V12H004W05
- Lens - ELPLX01WS - UST - EB-PU Series
  V12H004Y0A

LOGISTICS INFORMATION

SKU	**V11HA34940**
EAN code	**8715946697215**
Country of Origin	**Philippines**

For more information please contact:

Home users: 0343 90 37766
Business users*: 0871 42 37766
Republic of Ireland: 01 436 7742
Or visit us at https://www.epson.co.uk/contactus
*** 10p per minute plus network extras.**

Web: www.epson.co.uk
www.epson.ie

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Product information is subject to change without prior notice.
Last extracted: 2023-06-07

PTZOPTICS®

Share Your Vision

20X-ZCAM

Model Number:
PT20X-ZCAM
https://ptzoptics.com/zcam/

PTZOPTICS

3G-SDI Box Camera

The PTZOptics ZCAM-20X is a 1080p box camera with 20X optical zoom for capturing HD video even at a distance. With support for 3G-SDI & IP streaming, this camera is ideal for broadcasting high definition video signals for broadcast or video conferencing applications up to 1080p/60 resolution.

KEY FEATURES

- Panasonic 1/2.7" HD CMOS Sensor
- 3G-SDI High Definition Video Output
- H.264, H.265 & MJPEG IP streaming output (dual stream)
- AAC stereo unbalanced Audio Encoding over IP
- High performance in low light scenarios
- Full 1920x1080p HD Resolutions up to 60 frames per second via SDI
- 2D & 3D noise reduction with our latest "low noise CMOS sensor"
- Wide Dynamic Range
- Menu controls on back of camera
- RS485 and IP remote camera control
- 60.7° Field of View
- Std 1/4-20 female thread for camera mounting (bottom)
- PoE (Power over Ethernet)
- Hold left on Menu Navigation button for 5+ seconds to toggle Dynamic or Static IP addressing
- 5-year warranty
- Photobooth capable

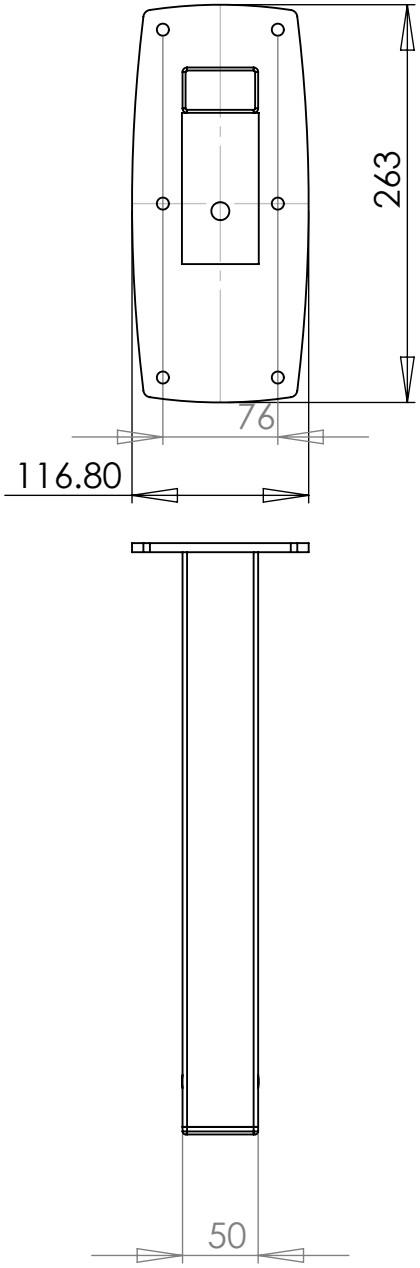
WHAT'S IN THE BOX

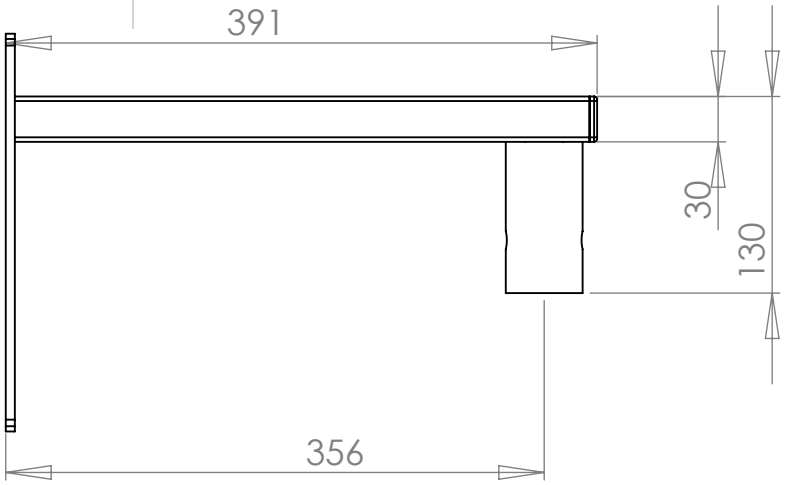
20X Box Camera
Power Adapter
PoE Splitter
Quick Start Guide

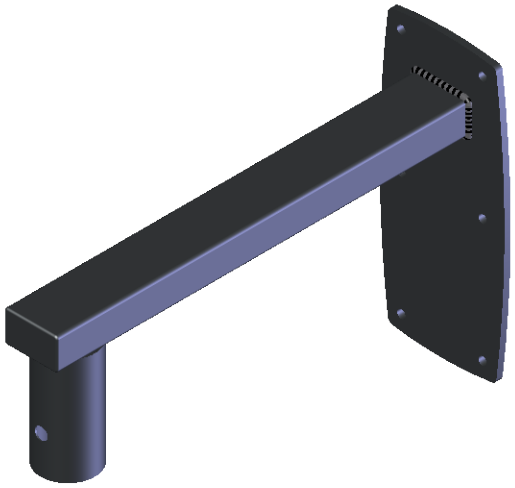
Camera & Lens	
Video Sensor	1/2.7" CMOS, 2.12 Mega Pixels
Frame Rates	1080p-60/50/30/25, 1080i-60/50, 720p-60/50 (IP Stream limited to 30 fps)
Focal Length	20x, F4.42mm-88.5mm, F1.8-F2.8
Lens Zoom	20x
Field of View	60.7°
Min Lux	0.05 Lux (@F1.8, AGC ON)
Shutter Speed	1/30s - 1/10000s
SNR	≥55dB
Vertical Flip & Mirror	Supported
Horizontal Field of View	3.36° (tele) to 60.7° (wide)
Vertical Field of View	1.89° (tele) to 34.1°(wide)
Working Environment	Indoor

Rear Board Connectors	
Video Output Interface	3G-SDI, RJ45 IP Network
Communication Interface	RS485 VISCA, Pelco-D, Pelco-P
Baud Rate	2400/4800/9600 bits
Power Supply Interface	JEITA type Power Adapter (DC in 12V)

Physical Specifications	
Dimensions (in.)	2.4W x 5.7D x 3.0H
Dimensions (mm.)	60.9W x 144.7D x 76.2H
Camera Weight	1.4 lbs | 0.63 kg
Box Dimensions (in.)	10W x 5D x 5H
Box Dimensions (mm.)	254W x 127D x 127H
Box Weight	2.0 lbs | 0.90 kg







Description	WB0 Peg Wall Arm 35cm For Projector

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS

SURFACE FINISH: Powder Coated

Saved Date: 20 August 2021
Created Date: 23 August 2021
Bend Tool:
Material:
Gauge:

DRW - REV
REV - B-006

See Below - Special Notes

Created By System Administrator.

Unicol Engineering
Green Road
Oxford OX3 8EU

Part Number & Part Revision
Ass--20001144 REV - B-006

WEIGHT: 2.83 Kg

SCALE:1:5 DO NOT SCALE DRAWING SHEET 1 OF 1

ATEM Mini Pro

ATEM Mini Pro is fast to set up and easy to use. It includes 4 standards converted HDMI inputs, USB webcam out, HDMI out, Fairlight audio mixer with EQ and dynamics, DVE for picture in picture, transition effects, green screen chroma key, 20 stills media pool for titles and free ATEM Software Control. ATEM Mini Pro also includes direct recording to USB flash disks in H.264 and direct streaming via Ethernet to YouTube Live and more. There's also a multiview with 4 cameras, media, preview and program plus status of recording, streaming and audio.

£249

Connections

Total Video Inputs
4

Total Outputs
2

Total Aux Outputs
1

Total Audio Inputs
2 x 3.5mm stereo mini jack.

Total Audio Outputs
None, embedded audio only.

Timecode Connection
None

HDMI Video Inputs
4 x HDMI type A, 10-bit
HD switchable.
2 channel embedded audio.

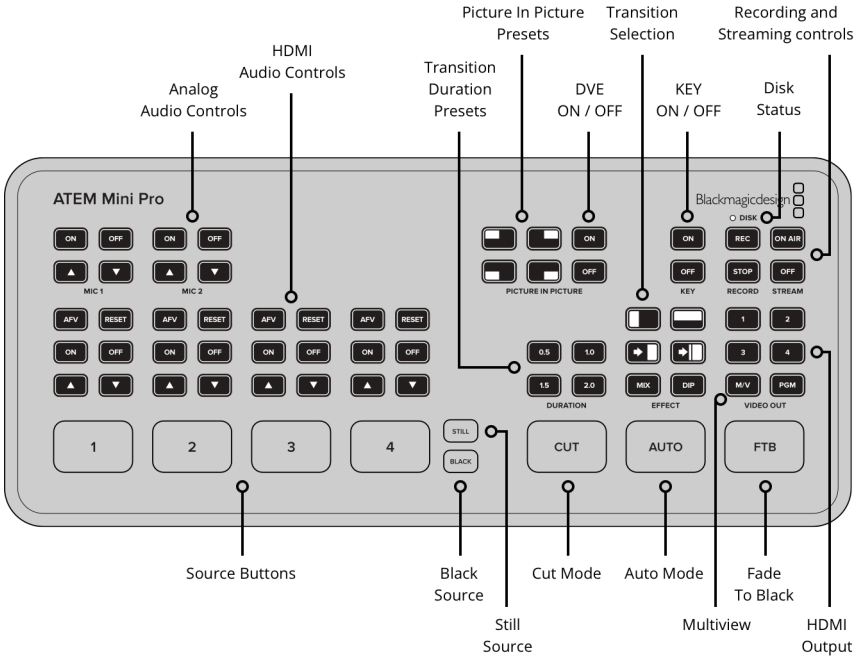
Video Input Re-Sync
On all 4 HDMI inputs.

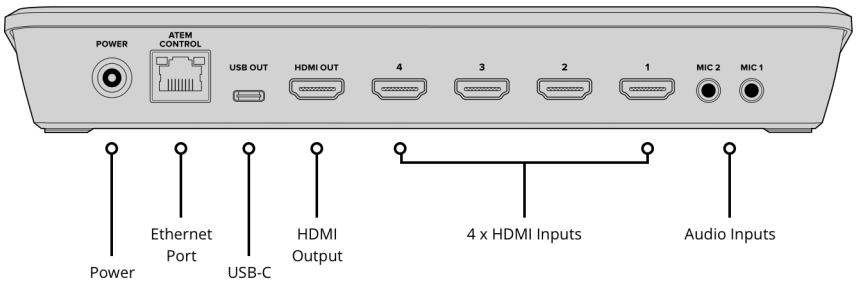
Frame Rate and Format Converters
On all 4 HDMI inputs.

HDMI Program Outputs
1

Ethernet
Ethernet supports 10/100/1000 BaseT for live streaming, software control, software updates and direct or network panel connection.

Computer Interface
1 x USB Type-C 3.1 Gen 1 for external drive recording, webcam out, software control, software updates and panel connection.





Standards

HD Video Input Standards
720p50, 720p59.94, 720p60
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60
1080i50, 1080i59.94, 1080i60

HD Video Output Standards
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60

Video Streaming Standards
1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60

Ultra HD Video Standards
None

Video Sampling
4:2:2 YUV

Color Precision
10-bit

Color Space
Rec 709

HDMI Input Resolutions from Computers
1280 x 720p 50Hz, 59.94Hz and 60Hz
1920 x 1080p 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60Hz
1920 x 1080i 50, 59.94Hz and 60Hz

Colorspace Conversion
Hardware based real time.

Product Specifics

Upstream Keyers
1

Downstream Keyers
1

Advanced Chroma Keyers
1

Linear/Luma Keyers
2

Transition Keyer
DVE only.

Total Number of Layers
5

Pattern Generators
1

Color Generators
2

DVE with Borders and Drop Shadow
1

Interface
Minimum monitor resolution of 1366 x 768.

Audio

Audio Mixer
6 input x 2 channel mixer.
Selectable On/Off/Audio-Follow-Video per channel plus separate gain control per channel.
Level and Peak metering. Plus new Fairlight audio enhancements: Compressor, Gate, Limiter, 6 bands of parametric EQ. Master gain control.

Analog Input
Unbalanced stereo

Analog Input Delay
Up to 8 frames

Input Impedance
1.8k

Max Input Level
+6dBV

Mic Plug In Power
Available on both 3.5mm mini jack connections.

Streaming

Direct Streaming
ATEM Mini Pro supports direct live streaming using Real Time Messaging Protocol (RTMP) over ethernet or a shared mobile internet connection over USB-C.

Recording

Direct Recording
1 x USB-C 3.1 Gen 1 expansion port for external media to direct record a .mp4 H.264 with AAC audio at the ATEM video standard.

Media Format
Supports media formatted ExFAT (Windows/Mac) or HFS+ (Mac) file system.

Multi View Monitoring

Multi View Monitoring
1 x 10 Views including left right configurable Program/Preview, 4 HDMI inputs, Media Player, Streaming Status, Recording Status and Audio Meters.

Multi View Video Standard
HD

Media Player

Media Players
1

Channels
Fill and key for each Media Player.

Media Pool Still Image Capacity
20 with fill and key.

Media Pool Still Image Format
PNG, TGA, BMP, GIF, JPEG and TIFF.

Control

Control Panel
Built in control panel. Software control panel with camera control included. Supports optional hardware panel.

Control Panel Connection
Ethernet supports 10/100/1000 BaseT. Ethernet used for direct connection between panel and chassis or via network. ATEM Mini Pro also supports direct USB-C connection. Ethernet or USB-C used for updating the software.

Control Panel Compatibility
Includes ATEM Software Control Panel. Also compatible with ATEM 1 M/E Advanced Panel and ATEM 2 M/E Broadcast Panel.

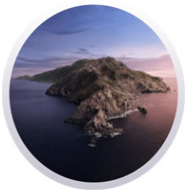
Control Panel Included
ATEM Software Control Panel included free for Mac 10.14 Mojave, Mac 10.15 Catalina or later and Windows 10 64 bit only.

Software

Software Updates
Using USB or Ethernet connection directly connected to Mac OS X or Windows computers. Includes ATEM Switcher Utility.

Configuration
Set via ATEM Software Control Panel, excluding ATEM chassis IP address which is set via the ATEM Switcher Utility connected via USB to chassis.

Operating Systems



Mac 10.14 Mojave,
Mac 10.15 Catalina or later.

Windows 10, 64-bit.

Power Requirements

Power Supply
1 x External 12V power supply.

Power Usage
30W

Physical Specifications

Environmental Specifications

Operating Temperature
5° C to 40° C (41° - 104° F)

Storage Temperature
-10° to 60° C (14° to 140° F)

Relative Humidity
0% to 90% non-condensing

What's Included

ATEM Mini Pro
External 12V DC power supply with international socket adapters

Warranty

12 Months Limited Manufacturer's Warranty.

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Blackmagic Design Authorized Reseller

LG Business Solutions

* All images are for illustrative purposes only.

Commercial TV US662H (EU/CIS)

LG Smart Hotel TV with Effective Content Management

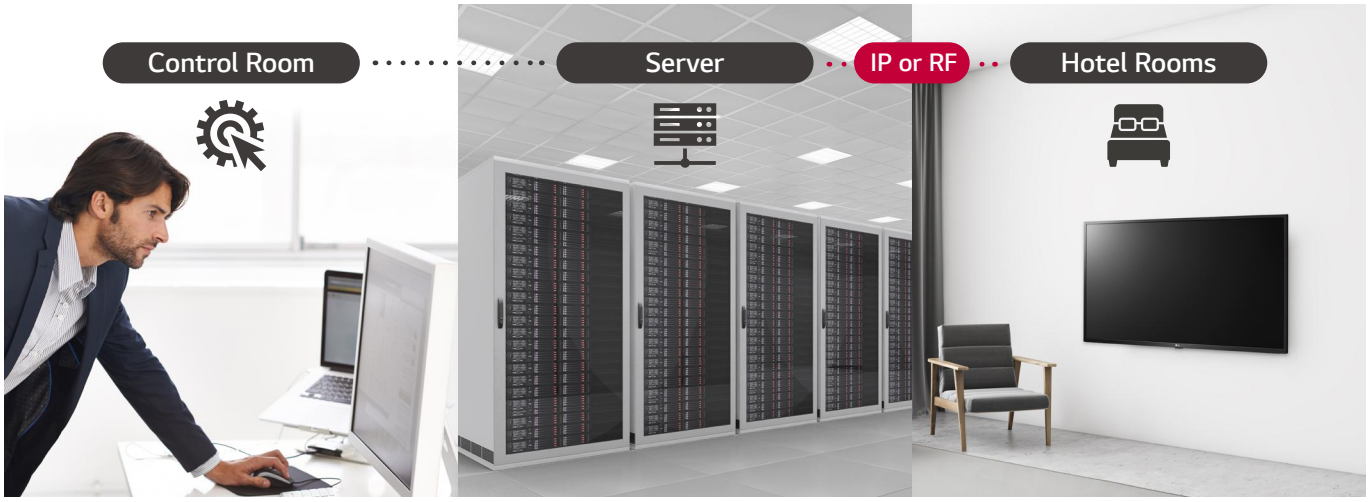
The US662H series supports clear Ultra HD and efficient content management with Pro:Centric solutions.
In addition, the new webOS 5.0 for a wide variety of customer needs, provides customized content in an easier way.

Pro:Centric Hotel Management Solution

Voice Recognition

Quick Menu

Pro:Centric HOTEL MANAGEMENT SOLUTION

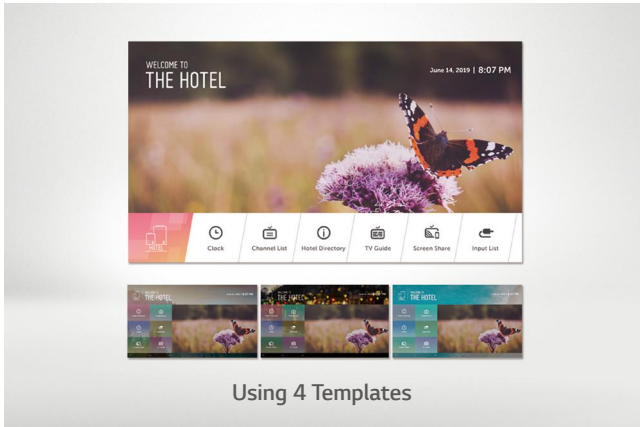


Pro:Centric Direct

The hotel content management solution Pro:Centric Direct offers easy and simple editing tools, making it easy to perform service and IP network-based remote management with a single click. The Pro:Centric Direct solution enables users to edit their interface easily by providing customized interface and efficiently manages all TVs in the room. The latest PCD version provides IoT-based in-room control as well as voice control function through LG Natural Language Processing (NLP). These IoT and voice-related functions will be your starting point to prepare for the hotel rooms of next generation through artificial intelligence.

* Some features may not be supported based on PCD versions.

VALUE ADDED FEATURES



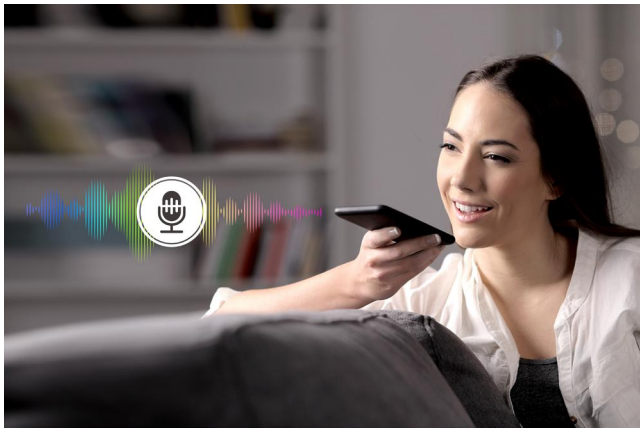
Quick Menu

Now LG provides the new Quick menu (ver. 4.0), making it easier and more user-friendly than ever. The home menu solution has been upgraded in a big way with the addition of the new Hotel Promotional Video Creation Tool. Users can now also use Quick Manager for easy information distribution throughout the same network without a server or USB Cloning function, making this the perfect solution for Stand-Alone Usage Scenes.

More Innovative LG webOS 5.0

Explore the latest LG Smart TV features, and discover TVs that deliver innovative technology, remarkable clarity, and true-to-life colors. Newly added Mood Display & Gallery Mode enable you to utilize the TV as a customized clock and an artwork which perfectly harmonizes with your space and life.

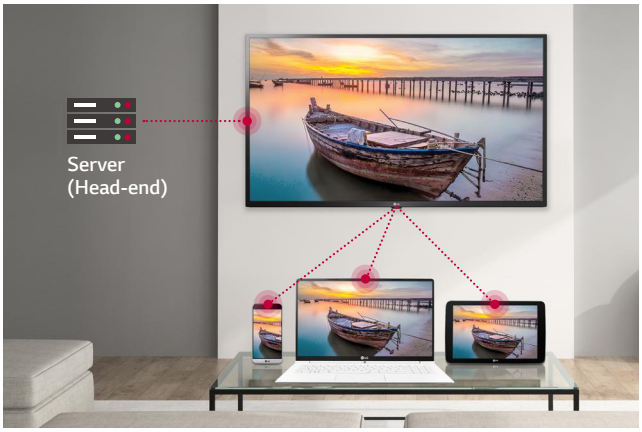
VALUE ADDED FEATURES



Voice Recognition

From seamless interaction to consistent user experience, LG is going one step further to lead the commercial TV market by including voice recognition, allowing users to easily control LG TVs. Our stable and dependable solutions based on webOS and Pro:Centric Direct will significantly enhance the competitiveness of our products and services, helping you achieve a successful business in the future.

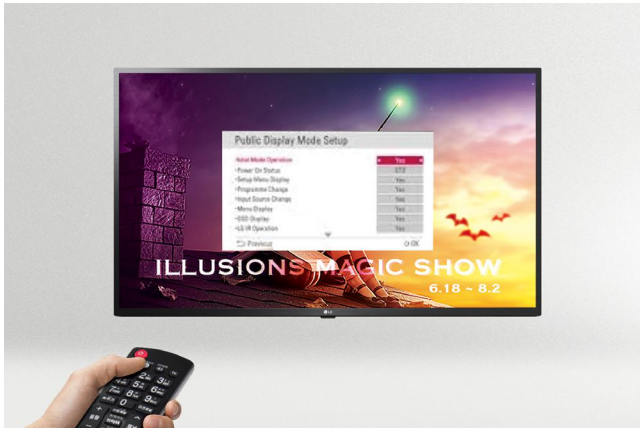
* TV native Control
* Server Based Control
* Magic Motion Remote is required (sold separately)



Soft AP

Software-enabled Access Point (Soft AP) is a "virtual" Wi-Fi feature that uses software to create a wireless hotspot. The current version supports Bridge Mode, which enables network administrators to manage connected devices and collect useful information such as signal level, Soft AP passwords, etc.

* SoftAP should be set in the installation menu after the TV is turned on.
* Smart Mirroring may not be operated at the same time.



Hotel Mode (Public Display Mode)

From channel selection to volume level, you can control the TV settings in business areas. Public Display Mode also enables you to restore default settings, as required, on the TVs.

Welcome Video / Screen

With the capability to display several images, Commercial Lite TVs allow for a greater variation of greeting messages in hotel rooms which make customers feel more welcome and cared for.

VALUE ADDED FEATURES

USB Cloning

USB data cloning makes managing multiple displays more efficient for optimal operation. Instead of setting up each display one by one, data can be copied to a USB for one display and can be sent to the other displays through a USB plug-in.

Remote Diagnostics

Save big expenses with the management of commercial TV with Remote Diagnostics. Real-time Remote Diagnostics reports and detects error early in advance to prevent TVs from malfunctioning.

IR Out

Using the interactive set-top box, all LG TVs can be controlled with a single remote control.

External Speaker Out

Enhance the entertainment experience with an additional speaker. Guests can listen and control the TV audio from anywhere, even from restrooms.

PRODUCT INFORMATION

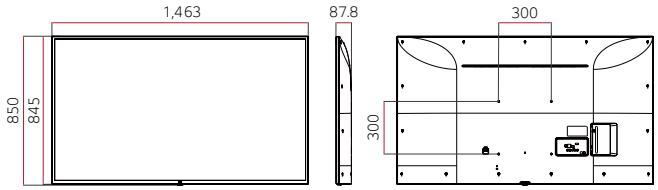
US662H (EU/CIS)

Design	Stand Type	No Stand
	Front Color	Ceramic Black
Display	Inch	65" / 55" / 50" / 43"
	Resolution	3,840 × 2,160 (UHD)
Solution	Pro:Centric (Smart, Direct, V), Quick Menu	

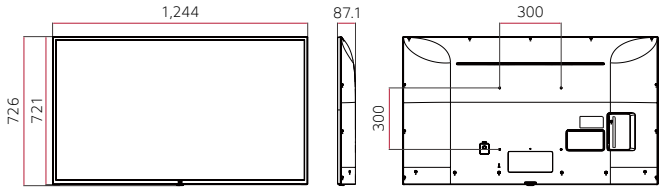
DIMENSION

(unit: mm)

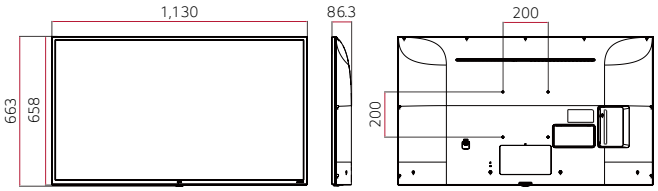
65"



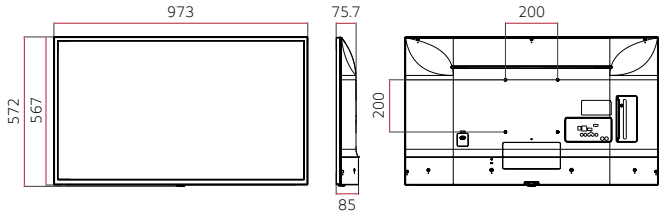
55"



50"

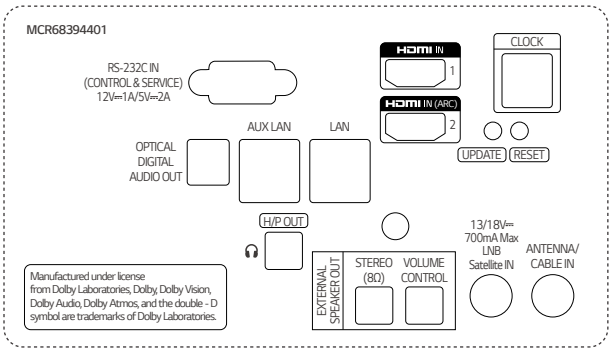


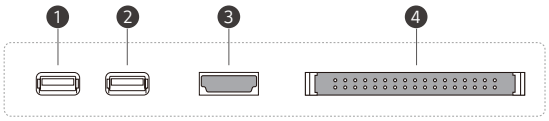
43"



CONNECTIVITY

65" / 55" / 50" / 43"





1. USB IN 1
2. USB IN 2
3. HDMI IN
4. PCMCIA CARD SLOT

* Dimensions & Jack Panels may differ from the above image, so please contact the LG sales team to verify before ordering.

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LG Business Solutions

VC-A50PN IP PTZ Camera with NDI®

Lumens®

The Lumens® VC-A50PN HD Pan/Tilt/Zoom (PTZ) IP camera is equipped with a professional 1/2.8 inch image sensor with Full HD 1080p output at 60 fps. It's powered by Power over Ethernet (PoE+), an economical and easy integration solution. The superior 20x optical zoom lens, excellent white balance, and exposure mode delivers a clear image, even in low light or the extreme contrast of brightness and darkness in a lecture hall.
The VC-A50PN has Ethernet, HDMI, and 3G-SDI outputs that are simultaneously active. It supports live broadcasting with H.264 format with latency of less than 120ms. The camera covers wide shooting angles and achieves high-speed, quiet, and precise positioning with smooth PTZ operations.
The VC-A50PN is an applicable solution for lecture recording, videoconferencing, and live broadcasting applications.

Key Features

- Full HD 1080p signal output format with a high frame rate of 60 fps
- 20x optical zoom
- Supports live broadcasting
- Supports Power Over Ethernet (PoE+)
- Supports NDI® technology for NDI-based video production
- Ethernet low latency (< 120 ms)
- Ethernet, HDMI, and 3G-SDI synchronous image outputs
- Maximum horizontal/vertical speed of rotation:120 degrees/second

More Details

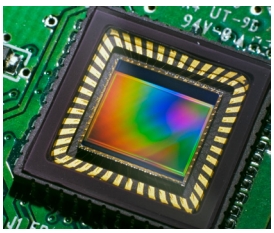


Image Quality

The VC-A50PN is equipped with a professional 1/2.8 inch image sensor with Full HD 1080p output resolution. The sensor provides high color reproduction, high-definition signals, and crystal-clear image quality.

Ethernet Interface

The VC-A50PN supports H.264 video compression format that can reduce the bandwidth for transmitting video. This technology can decrease hard disk space when recording.

Easy Installation

Powered by PoE+ (Power over Ethernet) allowing a cost-effective and simple installation.

Supports NDI® Technology

The VC-A50PN can connect directly to a NDI® network, utilizing NDI-based video production workflows without additional configuration, reducing cost and set-up time.

Wide Range Pan/Tilt/ Zoom Action

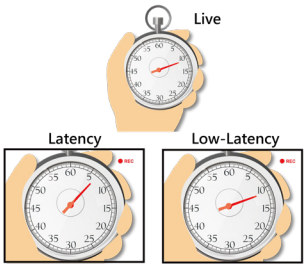
The VC-A50PN has a wide shooting area (pan angle from -170° to +170° ; tilt angle from -30° to +90°), as well as quiet, fast, and precise positioning movements.

Audio Input Support

Transmission through the Internet, SDI and HDMI extending the distance of an audio device. This enhances sound quality while reducing installation cost.

Multiple Signal Interface Formats

The VC-A50PN is able to switch video output formats to Full HD for compatibility in various display devices.



Ethernet Low-Latency

The VC-A50PN supports low-latency and the fast response time is less than 120 ms that allows unnoticeable delays between a live image and its output on the screen.

Product Specifications

Sensor	1/2.8" 2.41MP CMOS
Video Format	1080p : 60 / 59.94 / 50 / 30 / 29.97 / 25 1080i : 60 / 59.94 / 50 720p : 60 / 59.94 / 50
Video Output (HD) Interface	3G-SDI / HDMI / Ethernet
Optical Zoom	20x
Horizontal Viewing Angle	57°
Vertical Viewing Angle	32.1°
Diagonal Viewing Angle	65.4°
Panning Angle	+170° ~ -170°
Panning Speed	120° / sec
Tilting Angle	+90° ~ -30°
Tilting Speed	120° / sec
Aperture	F1.6 ~ F3.8
Focal Length	5.33mm ~ 110mm
Shutter Speed	1/1 ~ 1 / 10,000 sec
Minimum Object Distance	1.5m (Wide / Tele)
Video S/N Ratio	> 50dB
Minimum Illumination	1.0 lux (F1.6, 50IRE, 30fps)
Focus System	Auto / Manual
Gain Control	Auto / Manual
White Balance	Auto / Manual
Exposure Control	Auto / Manual

WDR	Yes
3D NR	Yes
Image Flip	Yes
Preset Positions	128
Multiple Video Stream	Two Streaming Structure NDI 1080p 60fps + 640 x 360 30fps
Control Interface	RS-232 / RS-422 / Ethernet
Control Protocol	VISCA / PELCO D / NDI
Tally Light	Yes
PoE	PoE+ (IEEE802.3at)
Video Stream	NDI|HX
Video Compression	H.264
Audio Input	Line In / MIC In (Phone Jack 3.5mm x1)
Audio Output	Ethernet / SDI / HDMI
IR Pass-through	Yes
IR Receiver	Yes
IR Remote Control	Yes
Power Consumption	PoE : 17.5W DC In : 16W
Weight	4.4lbs (2 kg)
Dimensions	6.9" x 7.3" x 7.3" (174 x 186 x 187 mm)

I/O CONNECTIONS

Lumens®

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www.MyLumens.com

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*The warranty policy may be different depending on the sales region, please contact your local salesperson.

CONTROL DESK