



Snell
Advanced
Media

User Manual

IQLAM00

3G/HD/SD-SDI Logo Assurance Module

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Safety Information

Explanation of Safety Symbols



- This symbol refers the user to important information contained in the accompanying literature. Refer to manual.
- This symbol indicates that hazardous voltages are present inside. No user serviceable parts inside. This unit should only be serviced by trained personnel.

Safety Warnings



Servicing instructions where given, are for use by qualified service personnel only. To reduce risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified personnel.

- To reduce the risk of electric shock, do not expose this appliance to rain or moisture.
- Always ensure that the unit is properly earthed and power connections correctly made.
- This equipment must be supplied from a power system providing a PROTECTIVE EARTH (⊕) connection and having a neutral connection which can be reliably identified.
- The power outlet supplying power to the unit should be close to the unit and easily accessible

Power connection in countries other than the USA

The equipment is normally shipped with a power cable with a standard IEC moulded free socket on one end and a standard IEC moulded plug on the other. If you are required to remove the moulded mains supply plug, dispose of the plug immediately in a safe manner.

The colour code for the lead is as follows:

- GREEN/YELLOW lead connected to E (Protective Earth Conductor)
- BLUE lead connected to N (Neutral Conductor)
- BROWN lead connected to L (Live Conductor)



- Caution If the unit has two mains supply inputs ensure that both power cords are plugged into mains outlets operating from the same phase.

Légende :



- Ce symbole indique qu'il faut prêter attention et se référer au manuel.
- Ce symbole indique qu'il peut y avoir des tensions électriques à l'intérieur de l'appareil. Ne pas intervenir sans l'agrément du service qualifié.

Précaution d'emploi :



Les procédures de maintenance ne concernent que le service agréé. Afin de réduire le risque de choc électrique, il est recommandé de se limiter aux procédures d'utilisation, à moins d'en être qualifié. Pour toute maintenance, contacter le service compétent.

- Pour réduire le risque de choc électrique, ne pas exposer l'appareil dans un milieu humide.
- Toujours s'assurer que l'unité est correctement alimentée, en particuliers à la liaison à la terre.
- La source électrique de cet équipement doit posséder une connexion à la terre (⊕), ainsi qu'une liaison « neutre » identifiable.
- La prise électrique qui alimente l'appareil doit être proche de celle-ci et accessible.

Câble secteur de pays autres que les Etats-Unis

L'équipement est livré avec un câble secteur au standard IEC, moulé mâle/femelle. Si vous souhaitez changer la prise mâle de votre cordon, voici les codes couleurs des fils :

- Le fil VERT/JAUNE est connecté à T (Terre)
- Le fil BLEU est connecté à N (Neutre)
- Le fil MARRON est connecté à P (Phase)



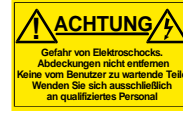
- Attention si l'appareil a 2 alimentations, s'assurer que les cordons soient branchés sur la même phase.

Erklärung der Sicherheitssymbole



- Dieses Symbol weist den Benutzer auf wichtige Informationen hin, die in der begleitenden Dokumentation enthalten sind.
- Dieses Symbol zeigt an, dass gefährliche Spannung vorhanden ist. Es befinden sich keine vom Benutzer zu wartenden Teile im Geräteinneren. Dieses Gerät sollte nur von geschultem Personal gewartet werden

Sicherheits-Warnhinweise



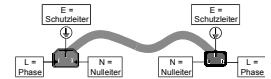
Die angeführten Service-/Reparatur-Anweisungen sind ausschließlich von qualifiziertem Service-Personal auszuführen. Um das Risiko eines lektroschocks zu reduzieren, führen Sie ausschließlich die im Benutzerhandbuch beschriebenen Anweisungen aus, es sei denn, Sie haben die entsprechende Qualifikation. Wenden Sie sich in allen Service-Fragen an qualifiziertes Personal.

- Um das Risiko eines Elektroschocks zu reduzieren, setzen Sie das Gerät weder Regen noch Feuchtigkeit aus.
- Stellen Sie immer sicher, dass das Gerät ordnungsgemäß geerdet und verkabelt ist.
- Dieses Equipment muss an eine Netzsteckdose mit Schutzleiter angeschlossen werden und einen zuverlässig identifizierbaren Nulleiter haben.
- Die Netzsteckdose sollte nahe beim Gerät und einfach zugänglich sein.

Netzanschluss in anderen Ländern als der USA

Das Equipment wird im Normalfall mit einem Netzkabel mit Standard IEC Anschlussbuchse und einem Standard IEC Anschlussstecker geliefert. Sollten Sie den angeschweißten Stecker auswechseln müssen, entsorgen Sie diesen bitte umgehend. Die farbliche Belegung des Netzkabels ist wie folgt:

- GRÜN GELB E = Schutzleiter (⊕)
- BLAU N = Nulleiter
- BRAUN L = P = Phase



- Achtung: Wenn das Gerät zwei Anschlussbuchsen hat, stellen Sie bitte sicher, dass beide Netzkabel mit der selben Phase in die Netzsteckdose gesteckt werden.

Explicación de los Símbolos de Seguridad



- Éste símbolo refiere al usuario información importante contenida en la literatura incluida. Referirse al manual.
- Éste símbolo indica que voltajes peligrosos están presentes en el interior. No hay elementos accesibles al usuario dentro. Esta unidad sólo debería ser tratada por personal cualificado.

Advertencias de Seguridad



Las instrucciones de servicio cuando sean dadas, son sólo para uso de personal cualificado. Para reducir el riesgo de choque eléctrico no llevar a cabo ninguna operación de servicio aparte de las contenidas en las instrucciones de operación, a menos que se esté cualificado para realizarlas. Referir todo el trabajo de servicio a personal cualificado.

- Para reducir el riesgo de choque eléctrico, no exponer este equipo a la lluvia o humedad.
- Siempre asegurarse de que la unidad está propiamente conectada a tierra y que las conexiones de alimentación están hechas correctamente.
- Este equipo debe ser alimentado desde un sistema de alimentación con conexión a TIERRA (⊕) y teniendo una conexión neutra fácilmente identificable.
- La toma de alimentación para la unidad debe ser cercana y fácilmente accesible.

Conexión de alimentación en otros países que no sean USA

El equipo es normalmente entregado con un cable de alimentación con un enchufe hembra estándar IEC en un extremo y con una clavija estándar IEC en el otro. Si se requiere eliminar la clavija para sustituirla por otra, disponer dicha clavija de una forma segura. El código de color a emplear es como sigue:

- VERDE/ AMARILLO conectado a E (Conductor de protección a Tierra -Earth en el original-)
- AZUL conectado a N (Conductor Neutro -Neutral en el original-)
- MARRÓN conectado a L (Conductor Fase -Live en el original-)



- Advertencia Si la unidad tuviera dos tomas de alimentación, asegurarse de que ambos cables de alimentación están conectados a la misma fase.

Simboli di sicurezza:



- ⚠ Questo simbolo indica l'informazione importante contenuta nei manuali appartenenti all'apparecchiatura. Consultare il manuale.
- ⚠ Questo simbolo indica che all'interno dell'apparato sono presenti tensioni pericolose. Non cercare di smontare l'unità. Per qualsiasi tipo di intervento rivolgersi al personale qualificato.

Attenzione:



Le istruzioni relative alla manutenzione sono ad uso esclusivo del personale qualificato. E' proibito all'utente eseguire qualsiasi operazione non esplicitamente consentita nelle istruzioni. Per qualsiasi informazione rivolgersi al personale qualificato.

- Per prevenire il pericolo di scosse elettriche è necessario non esporre mai l'apparecchiatura alla pioggia o a qualsiasi tipo di umidità.
- Assicurarsi sempre, che l'unità sia propriamente messa a terra e che le connessioni elettriche siano eseguite correttamente.
- Questo dispositivo deve essere collegato ad un impianto elettrico dotato di un sistema di messa a terra efficace.
- La presa di corrente deve essere vicina all'apparecchio e facilmente accessibile.

Connessione elettrica nei paesi diversi dagli Stati Uniti

L'apparecchiatura normalmente è spedita con cavo pressofuso con la presa e spina standard IEC. Nel caso della rimozione della spina elettrica, gettarla via immediatamente osservando tutte le precauzioni del caso. La leggenda dei cavi è la seguente:

VERDE/GIALLO cavo connesso ad "E" (terra)
BLU cavo connesso ad "N" (neutro)
MARRONE cavo connesso ad "L" (fase)



- ⚠ Attenzione! Nel caso in cui l'apparecchio abbia due prese di corrente, assicurarsi che i cavi non siano collegati a fasi diverse della rete elettrica.

Förklaring av Säkerhetssymboler



- ⚠ Denna symbol hänvisar användaren till viktig information som återfinns i litteraturen som medföljer. Se manualen.
- ⚠ Denna symbol indikerar att livsfarlig spänning finns på insidan. Det finns inga servicevänliga delar inne i apparaten. Denna apparat får endast repareras av utbildad personal.

Säkerhetsvarningar



Serviceinstruktioner som anges avser endast kvalificerad och utbildad servicepersonal. För att minska risken för elektrisk stöt, utför ingen annan service än den som återfinns i medföljande driftinstruktionerna, om du ej är behörig. Överlåt all service till kvalificerad personal.

- För att reducera risken för elektrisk stöt, utsätt inte apparaten för regn eller fukt.
- Se alltid till att apparaten är ordentligt jordad samt att strömtillförseln är korrekt utförd.
- Denna apparat måste bli försörd från ett strömsystem som är försedd med jordanslutning (⊕) samt ha en neutral anslutning som lätt identifierbar.
- Vägguttaget som strömförsörjer apparaten bör finnas i närheten samt vara lättillgänglig.

Strömkontakter i länder utanför USA

Apparaten utrustas normalt med en strömkabel med standard IEC gjuten honkontakt på ena änden samt en standard IEC gjuten hankontakt på den andra änden. Om man måste avlägsna den gjutna hankontakten, avyttra denna kontakt omedelbart på ett säkert sätt. Färgkoden för ledningen är följande:

GRÖN/GUL ledning ansluten till E (Skyddsjordad ledare)

BLÅ ledning ansluten till N (Neutral ledare)
BRUN ledning ansluten till L (Fas ledare)



- ⚠ Varning! Om enheten har två huvudsakliga elförsörjningar, säkerställ att båda strömkablarna som är inkopplade i enheten arbetar från samma fas.

Forklaring på sikkerhedssymboler



- ⚠ Dette symbol gør brugeren opmærksom på vigtig information i den medfølgende manual.
- ⚠ Dette symbol indikerer farlig spænding inden i apparatet. Ingen bruger servicebare dele i apparatet på brugerniveau. Dette apparat må kun serviceres af faglærte personer..

Sikkerhedsadvarsler



Serviceinstruktioner er kun til brug for faglærte servicefolk. For at reducere risikoen for elektrisk stød må bruger kun udføre anvisninger i betjeningsmanualen. Al service skal udføres af faglærte personer.

- For at reducere risikoen for elektrisk stød må apparatet ikke udsættes for regn eller fugt.
- Sørg altid for at apparatet er korrekt tilsluttet og jordet.
- Dette apparat skal forbindes til en nettilslutning, der yder BESKYTTENDE JORD (⊕) og 0 forbindelse skal være tydeligt markeret.
- Stikkontakten, som forsyner apparatet, skal være tæt på apparatet og let tilgængelig.

Nettilslutning i andre lande end USA

Udstyret leveres normalt med et strømkabel med et standard IEC støbt løst hunstik i den ene ende og et standard IEC støbt hanstik i den anden ende. Hvis et af de støbte stik på strømkablet er defekt, skal det straks kasseres på forsvarlig vis. Farvekoden for lederen er som følger:

GRØN/GUL leder forbundet til J (Jord)
BLÅ leder forbundet til 0
BRUN leder forbundet til F (Fase)



- ⚠ Forsigtig Hvis enheden har to lysnetindgange, skal der sørges for at begge ledninger tilsluttes lysnetudgange fra den samme fase.

Turvamerkkien selitys



- ⚠ Tämä merkki tarkoittaa, että laitteen mukana toimitettu kirjallinen materiaali sisältää tärkeitä tietoja. Lue käyttöohje.
- ⚠ Tämä merkki ilmoittaa, että laitteen sisällä on vaarallisen voimakas jännite. Sisäpuolella ei ole mitään osia, joita käyttäjä voisi itse huoltaa. Huollon saa suorittaa vain alan ammattilainen.

Turvaohjeita



Huolto-ohjeet on tarkoitettu ainoastaan alan ammattilaisille. Älä suorita laitteelle muita toimenpiteitä, kuin mitä käyttöohjeissa on neuvottu, ellei ole asiantuntija. Voit saada sähköiskun. Jätä kaikki huoltotoimet ammattilaiselle.

- Sähköiskujen välttämiseksi suojaa laite sateelta ja kosteudelta.
- Varmistu, että laite on asianmukaisesti maadoitettu ja että sähkökytkennät on tehty oikein.
- Laitteelle tehoa syöttävässä järjestelmässä tulee olla SUOJAMAALIITÄNTÄ (⊕) ja nolaliitännän on oltava luotettavasti tunnistettavissa.
- Sähköpistorasian tulee olla laitteen lähellä ja helposti tavoitettavissa.

Sähkökytkentä

Laitteen vakiovarusteena on sähköjohto, jonka toisessa päässä on muottiin valettu, IEC-standardin mukainen liitäntärasia ja toisessa päässä muottiin valettu, IEC-standardin mukainen pistoliitin. Jos pistoliitin tarvitsee poistaa, se tulee hävittää heti turvallisella tavalla. Johtimet kytketään seuraavasti:

KELTA-VIHREÄ suojamaajohdin E-napaan
SININEN nolajohdin N-napaan
RUSKEA vaihejohdin L-napaan



- ⚠ Huom! Jos laitteessa on kaksi verkkojännitteen tuloliitäntää, niiden johdot on liitettävä verkkopistorasioihin, joissa on sama vaiheistus.

Σύμβολο de Segurança



- O símbolo triangular adverte para a necessidade de consultar o manual antes de utilizar o equipamento ou efectuar qualquer ajuste.
- Este símbolo indica a presença de voltagens perigosas no interior do equipamento. As peças ou partes existentes no interior do equipamento não necessitam de intervenção, manutenção ou manuseamento por parte do utilizador. Reparações ou outras intervenções devem ser efectuadas apenas por técnicos devidamente habilitados.

Avisos de Segurança

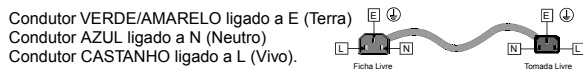


As instruções de manutenção fornecidas são para utilização de técnicos qualificados. Para reduzir o risco de choque eléctrico, não devem ser realizadas intervenções no equipamento não especificadas no manual de instalações a menos que seja efectuadas por técnicos habilitados.

- Para reduzir o risco de choque eléctrico, não expor este equipamento à chuva ou humidade.
- Assegurar que a unidade está sempre devidamente ligada à terra e que as ligações à alimentação estão correctas.
- O sistema de alimentação do equipamento deve, por razões de segurança, possuir ligação a terra de protecção (⊥) e ligação ao NEUTRO devidamente identificada.
- A tomada de energia à qual a unidade está ligada deve situar-se na sua proximidade e facilmente acessível.

Ligação da alimentação noutros países que não os EUA

O equipamento é, normalmente, enviado com cabo de alimentação com ficha IEC fêmea standard num extremo e uma ficha IEC macho standard no extremo oposto. Se for necessário substituir ou alterar alguma destas fichas, deverá remove-la e elimina-la imediatamente de maneira segura. O código de cor para os condutores é o seguinte:



- Atenção: Se a unidade tem duas fontes de alimentação assegurar que os dois cabos de alimentação estão ligados a tomadas pertencentes à mesma fase.

Επεξήγηση των Συμβόλων Ασφαλείας



Αυτό το σύμβολο παραπέμπει το χρήστη σε σημαντικές πληροφορίες που συμπεριλαμβάνονται στο συνοδευτικό εγχειρίδιο.



Αυτό το σύμβολο υποδεικνύει ότι στο εσωτερικό υφίστανται επικίνδυνες ηλεκτρικές τάσεις. Στο εσωτερικό δεν υπάρχουν επισκευάσιμα μέρη. Αυτή η μονάδα πρέπει να επισκευάζεται μόνο από ειδικά εκπαιδευμένο προσωπικό.

Προειδοποίηση Ασφαλείας

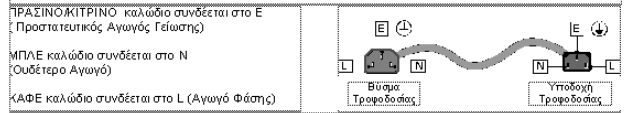


Οδηγίες επισκευής, όπου παρέχονται, αναφέρονται αποκλειστικά και μόνο σε εξειδικευμένο προσωπικό. Για να μειωθεί ο κίνδυνος ηλεκτροπληξίας, μην εκτελέτε επισκευές παρά μόνο τις συμπεριλαμβανόμενες στο εγχειρίδιο των οδηγιών, εκτός και αν έχετε τα απαραίτητα προσόντα για να το κάνετε. Όλες οι επισκευές να εκτελούνται από ειδικά εκπαιδευμένο προσωπικό.

- Για να μειώσετε τον κίνδυνο ηλεκτροπληξίας μην εκθέτετε τη συσκευή σε βροχή ή υγρασία.
- Πάντα να εξασφαλίζετε τη σωστή γείωση της συσκευής και τη σωστή σύνδεση των συνδέσμων τροφοδοσίας.
- Ο εξοπλισμός πρέπει να τροφοδοτείται από ένα σύστημα τροφοδοσίας που να εξασφαλίζει ΠΡΟΣΤΑΤΕΥΤΙΚΗ ΓΕΙΩΣΗ (⊥) και να έχει καθορισμένες θέσεις ουδέτερου και φάσης.
- Ο εξοπλισμός που τροφοδοτεί τη συσκευή θα πρέπει να βρίσκεται κοντά στη συσκευή και να είναι εύκολα προσβάσιμος.

Σύνδεση τροφοδοσίας σε χώρες εκτός των ΗΠΑ

Ο εξοπλισμός συνοδεύεται συνήθως από ένα καλώδιο τροφοδοσίας με ένα σταθερό βύσμα τροφοδοσίας βρέματος τύπου πυραμίδας στη μια άκρη του και μια σταθερή υποδοχή τροφοδοσίας βρέματος τύπου πυραμίδας στην άλλη άκρη του. Εάν χρειαστεί να αφαιρέσετε το σταθερό βύσμα τροφοδοσίας μην το επαναχρησιμοποιείτε, θεωρείται άχρηστο. Ο χρωματικός οδηγός για το καλώδιο τροφοδοσίας είναι ο παρακάτω:



- ΠΡΟΣΟΧΗ! Αν η μονάδα έχει δύο τροφοδοτικά βεβαιωθείτε ότι και τα δύο καλώδια τροφοδοσίας είναι συνδεδεμένα σε εξόδους τροφοδοσίας που βρίσκονται στην ίδια φάση.

Laser Safety

This product operates with Class 1 laser products.



Caution: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Ventilation

Although the unit is constructed to meet normal environmental requirements, ensure that there is a free flow of air at the front, rear, and sides of the unit to dissipate the heat produced during operation. Installations should be designed to allow for this.



Do not obstruct the ventilation holes on the right-side of the unit. Damage to the equipment may result.

Safety Standards

This equipment conforms to the following standards:

EN60950-1 2006 + A11: 2009

Safety of Information Technology Equipment Including Electrical Business Equipment.

UL1419 (3rd Edition) - UL File E193966

Standard for Safety – Professional Video and Audio equipment.



EMC Standards

This equipment conforms to the following standards:

EN 55032:2012 (Class A)

Electromagnetic Compatibility of Multimedia Equipment - Emission Requirements.

EN 61000-3-2:2014 (Class A)

Limits for Harmonic Current Emissions.

EN 61000-3-3:2013

Limitation of Voltage Changes, Voltage Fluctuations and Flicker in Public Low-Voltage Supply Systems.

FCC/CFR 47:Part 15, Class A

Federal Communications Commission Rules Part 15, Subpart B, Class A.

EMC Environment

The product(s) described in this manual conform to the EMC requirements for, and are intended for use in, the controlled EMC environment (for example, purpose-built broadcasting or recording studios), and the rural outdoor environment (far away from railways, transmitters, overhead power lines, etc.) E4.



Warning: This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.

EMC Performance of Cables and Connectors

Snell products are designed to meet or exceed the requirements of the appropriate European EMC standards. In order to achieve this performance in real installations it is essential to use cables and connectors with good EMC characteristics.

All signal connections (including remote control connections) shall be made with screened cables terminated in connectors having a metal shell. The cable screen shall have a large-area contact with the metal shell.

Coaxial Cables

Coaxial cables connections (particularly serial digital video connections) shall be made with high-quality double-screened coaxial cables such as Belden 1694 or BBC type PSF1/2M.

D-type Connectors

D-type connectors shall have metal shells making good RF contact with the cable screen. Connectors having indents which improve contact between the plug and socket shells are recommended.

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1. Introduction

1.1 Description

The IQLAM provides a fast and efficient way to monitor channel branding, by detecting an on-air logo and comparing it with a stored logo signature file. Multiple logo files can be stored on the module and loaded via triggers from the automation system as required, to provide confidence that the channel branding is correct. Similarly, the IQLAM can feed back its logging and reporting information to the Morpheus automation system's As Run log, enabling any anomalies to be captured for later analysis. It does this by generating and comparing region-specific video signatures from the SDI stream and its stored logo signature file, and reporting back the detection confidence value and an alarm, should there be a mismatch. See the Morpheus documentation for further information.

Being fully compatible with both SAM's RollMap graphical monitoring software and Morpheus automation system means that logo detection can be scheduled and confidence values and alarms from across the system can be shown in a single display graphic, providing confidence at a glance. Alternatively, native SNMP support enables the IQLAM to be integrated with other network management or automation systems.

1.2 Feature Summary

- Detects the presence of logos in 3G/HD/SD-SDI video streams with reference to a generated logo signature file.
- Can report presence or absence of target logo using the RollCall control and monitoring system, or via SNMP.
- Multiple logos can be downloaded to the card via RollCall, and stored for recall during playout.
- Standards supported:
 - 3G-SDI to SMPTE 424M/425M level A compatible
 - HD-SDI to SMPTE292M/274M/296M
 - SD-SDI to SMPTE259M-C
 - Fiber to SMPTE 297-2006
- SFP cage enables I/O over fiber or additional SDI via HD-BNC.
- 16 x user and logo memories, save/recall/rename.
- Rollcall control and monitoring compatible with standard logging and reporting features.

1.3 Application Notes

1.3.1 About Power Ratings

SAM IQ modules are assigned a *Power Rating* (PR). This figure represents the relative power consumption of a module.

SAM modular enclosures are also assigned PR values. This figure represents the maximum power available from the enclosure.

The combined total of all modules' PR values must not exceed the enclosure's PR value.

Note: If a module's PR value is not known, use the module's power consumption figure in watts as the PR value.

1.3.2 Power Ratings and Card Widths

Product	Width	PR
IQLAM00	1	14.5

1.4 Block Diagram

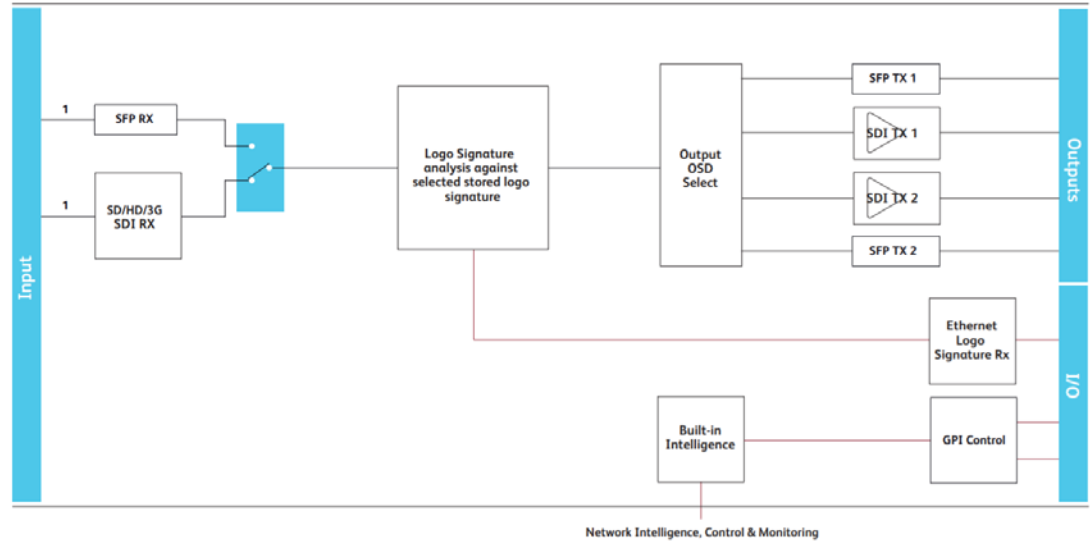


Figure 1 Block Diagram for IQLAM0000-1B3

1.5 Order Codes

The following product order codes are covered by this manual:

1.5.1 Order Code for IQH3B Enclosures

IQLAM0000-1B3 3G/HD/SD-SDI Logo Assurance Module. 1 SDI input, 2 SDI outputs, 1 SFP interface, 2 GPI/Os, Ethernet I/O.

1.5.2 Order Code for IQH3A/1A Enclosures

IQLAM0000-1A3 3G/HD/SD-SDI Logo Assurance Module. 1 SDI input, 2 SDI outputs, 1 SFP interface, 2 GPI/Os, Ethernet I/O.

1.5.3 SFP Options

FC1-13T1	Single 1310nm fiber Tx
FC1-13T2	Dual 1310nm fiber Tx
FC1-15T1	Single 1550nm fiber Tx
FC1-15T2	Dual 1550nm fiber Tx
FC1-R1	Single fiber Rx
FC1-13TR	Fiber transceiver 1310nmTx/Rx
FC1-HDBT2	HD-BNC Dual Tx
FC1-HDBR2	HD-BNC Dual Rx
Fiber CWDM Tx	Wavelengths available on request.

Note: SFP type must be ordered in addition to the module.

1.6 Rear Panel View

The following rear panel type is available:

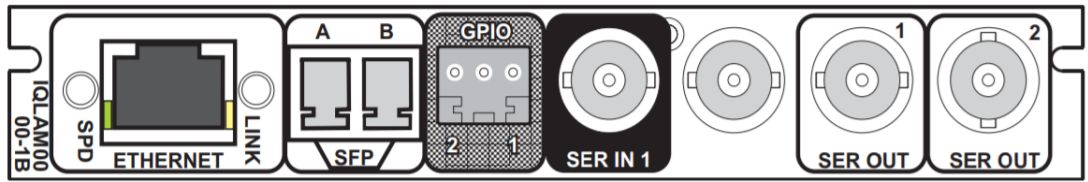


Figure 2 IQLAM0000-1A3, IQLAM0000-1B3

1.7 Enclosures

The IQLAM00 can be fitted to the enclosures shown below.

Important:

Although IQ modules are interchangeable between enclosures, their rear panels are enclosure-specific. IQH3B enclosures accept modules with either **A** or **B** order codes. IQH3A or IQH1A enclosures accept modules with **A** order codes only.



Figure 3 IQH3B-S-0, IQH3B-S-P

Note:

The IQH3B enclosure provides two internal analog reference inputs. These inputs are applicable to modules with B order codes only.



Figure 4 IQH1A-S-P



Figure 5 IQH3A-S-O, IQH3A-S-P



Figure 6 IQH3A-E-0, IQH3A-E-P, IQH3A-0-P

2. Technical Specification

Inputs/Outputs	
Signal Inputs	
SDI Inputs	1
Electrical	3Gbit/s SDI, SMPTE 424M (425M-level A) 1.5Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C
Connector/Format	BNC/75Ω panel jack on standard SAM connector panel
Input Cable Length	Up to 80m Belden 1694A @ 3Gbps Up to 150m Belden 1694A @ 1.5 Gbps Up to 250m Belden 1694A @ 270 Mbps
Signal Outputs	
SDI Outputs	2 with selectable logo region OSD
Electrical	3Gbit/s SDI, SMPTE 424M 1.5Gbit/s HD-SDI, SMPTE 292M 270 Mbit/s SDI, SMPTE 259M-C
Connector/Format	BNC/75Ω panel jack on standard SAM connector panel HD/SD-SDI Outputs x 7 (1 selectable main or monitoring)
Return loss	>-15dB to 1.5GHz, better than -10dB to 3GHz
Indicators	
Card Edge LED	
Power	OK (Green)
CPU	OK (Green Flashing)
Content Status Summary	OK (Green) Warning (Yellow) Error (Red)
Functions	
OSD output select	On/Off
Logo Detection Window	Up to 25% of screen area
Logo Detection Position	All or part of the logo detection window
Logo Detection	Enable/Disable
User Memories	16 x Save/Recall/Rename
Logo Memories	16 x Save/Recall/Rename
Reporting and Logging	Input loss; input line standard; logo detected, detection confidence
Information Window	Video input status, audio input status
RollTrack Index	Up to 16 RollTrack destinations
RollTrack Sources	Unused, input state & standard, logo confidence, logo detected, GPI/O state

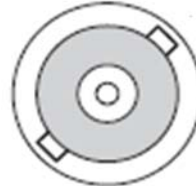
Factory Default	Resets all module settings to factory specified default values and clears memories
Default Settings	Resets all module settings to factory specified defaults but does not clear memories
Restart	Software restart of the module
Module Information	Reports following module information: software version, serial number, build number, KOS version, firmware version, PCB version
Specifications	
Standards Supported	1080/50p, 1080/59p, 1080/60p 750(720)/60p, 750(720)/59p, 750(720)/50p 1125(1080)/29i, 1125(1080)/30p, 1125(1080)/29p, 1125(1080)/25i, 1125(1080)/25p, 1125(1080)/24p, 1125(1080)/23p 625(576)/25i 525(480)/29i
Module power consumption	14.5 PR Max

3. Connections

This section describes the physical input and output connections provided by the IQLAM00.

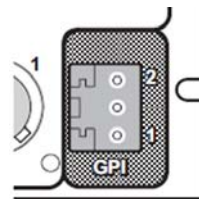
3.1 SDI IO

3 x 3G/HD/SD-SDI interfaces provided with BNC.



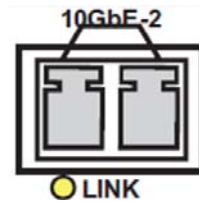
3.2 External Input/Output

Two general purpose GPIO connectors are provided, both using standard screw terminals.



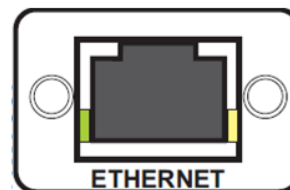
3.3 SDI SFP

SFP+ supporting 3G/HD/SD-SDI.



3.4 Ethernet

RJ45 10/100/1G Ethernet.




4. Card Edge LEDs

The LEDs on the edge of the module indicate its operating status.

Front Panel	Indicator	Description
<p>The diagram shows the front panel of the IQLAM00 module. It features a vertical stack of LEDs. From top to bottom, the LEDs are: Power OK (green), CPU OK (green), Status (green), FPGA (green), SER IN 1 (green), SFP (green), and SER IN 1 (green). The module is labeled 'IQLAM00' and '3G/HD/SD-SDI Logo Assurance Module'.</p>	Power OK	Green
	CPU OK	Green Flashing
	Status	Not used
	FPGA	Not used
	SER IN 1	Red = Error/No input Green = Input OK Blue = Input available but not selected
	SFP A	Red = Error/No input Green = Input OK Blue = Input available but not selected Off = Input not available
	SFP	
	SER IN 1	

5. RollCall Control Panel

This section contains information on using the IQLAM with RollCall.

For help with general use of the RollCall application, open the user manual by clicking the  button on the main RollCall toolbar.

5.1 Navigating Pages in the RollCall Template

The RollCall template has a number of pages, each of which can be selected from the list at the top left of the display area. Right-clicking anywhere on the pages will also open a page view list, allowing quick access to any of the pages.

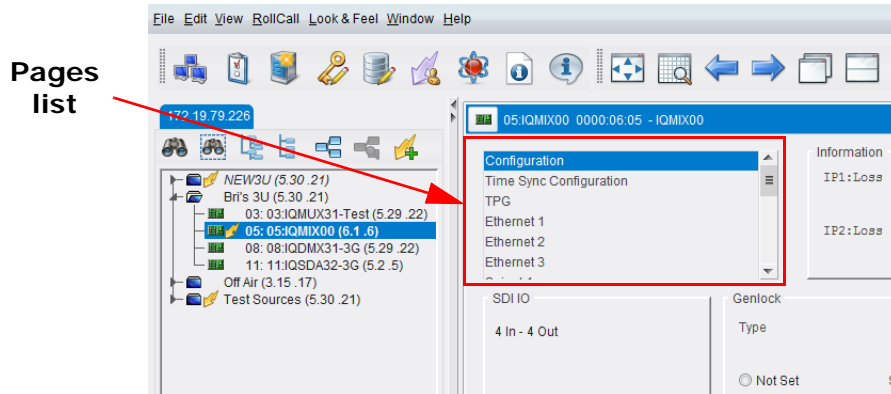


Figure 7 Template Pages


5.1.1 Template Pages


The following pages are available:

- **Inputs/Outputs** - see section 5.4
- **Logo Match** - see section 5.5.
- **Memory 1-16** - see section 5.6.
- **SFP** - see section 5.7.
- **GPIO** - see section 5.8.
- **RollTrack** - see section 5.9.
- **Ethernet** - see section 5.10.
- **Logging** - see section 5.11.
- **Setup** - see section 5.12.

5.1.2 Setting Values

Many of the settings within the templates have values, either alpha or numeric.

When setting a value in a field, the value, whether text or a number, must be set by pressing the ENTER key, or clicking the  **Save Value** button.

Clicking an associated  **Preset Value** button returns the value to the factory default setting.

5.2 Information Display

The **Information** and **SFP Status** display panes appear at the top of each page, and show basic information on the status of the module and any SFPs fitted.

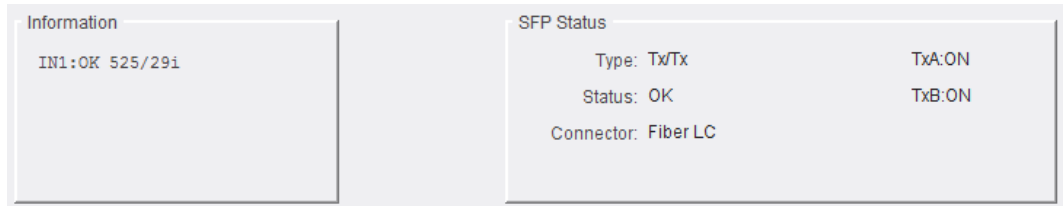


Figure 8 Information and SFP Status Panes

5.3 Signature Files

In essence, the IQLAM works by scanning logo files and generating a “signature”, which is then imported to the module and compared against logos actually being broadcast. Any discrepancies are then reported.

Follow the instructions below to generate and import logo signatures.

5.3.1 Generating Signatures

1. Open the RollCall control panel, and click the **Logo Signatures** button on the main toolbar.

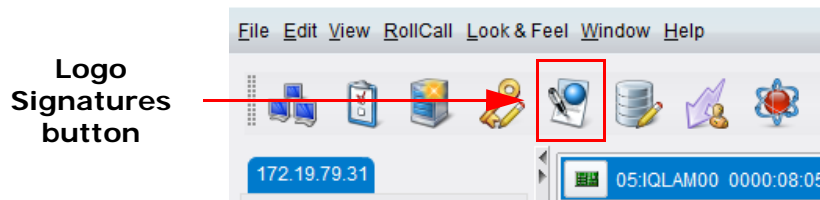


Figure 9 Logo Signatures Button

The **Logo Importer and Signature Generator** window is displayed:

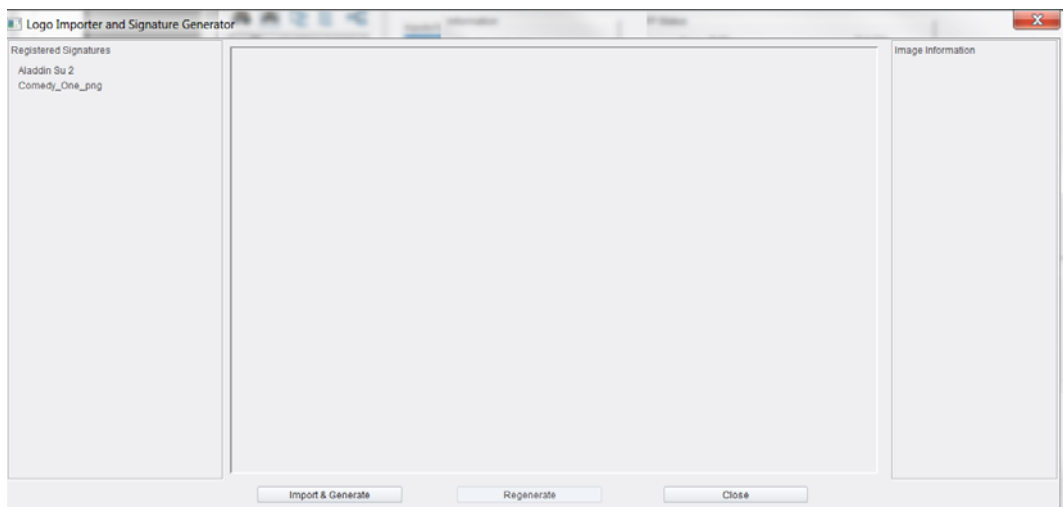


Figure 10 Logo Importer and Signature Generator

2. Click **Import and Generate**; a Windows browse dialog is displayed:

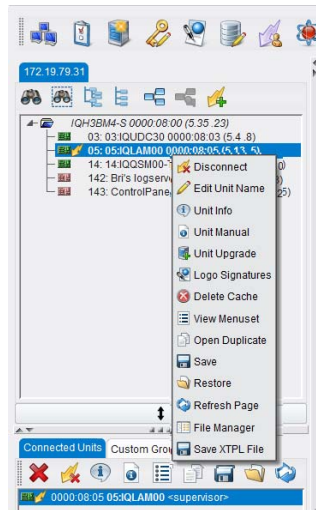


Figure 11 Browse Dialog

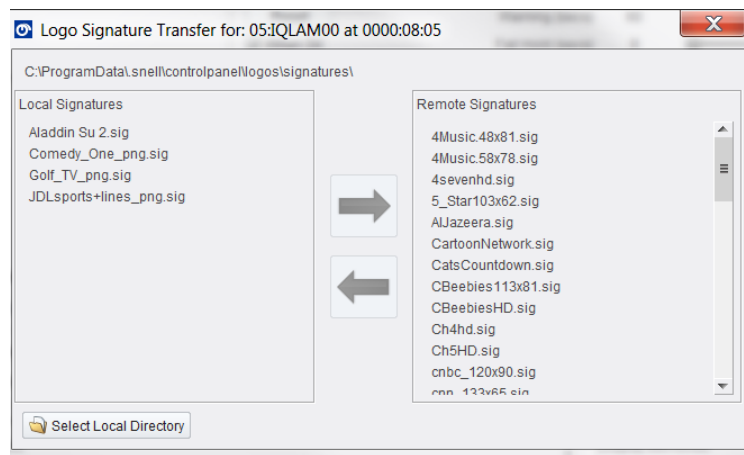
3. Navigate to the logos' location, and select as required. Multiple files may be selected at a time.
4. Click **Import and Generate**; signatures are created, and the logo names are added to the **Registered Signatures** list on the **Logo Importer and Signature Generator** window.
5. Repeat steps 3 and 4 as required.

5.3.2 Importing Signatures

1. Open the RollCall control panel. Right-click the entry for the IQLAM as shown below, and select **Logo Signatures** from the context menu:



2. The **Logo Signature Transfer** dialog is displayed:



Generated signatures are stored in a directory (the “Local Directory”) on the PC used to generate the signatures. These are displayed on the **Local Signatures** pane. Signatures already uploaded to the IQLAM are displayed on the **Remote Signatures** pane.

Note: The local directory can be changed from the factory default if required. To do this, click **Select Local Directory** and select **Select Another Directory**, then specify the directory to be used.

3. Select the signatures to be imported from the **Local Signatures** pane, and click . The signatures are imported.

5.4 Inputs/Outputs

The **Inputs/Outputs** page provides controls for source selection and output signal routing.

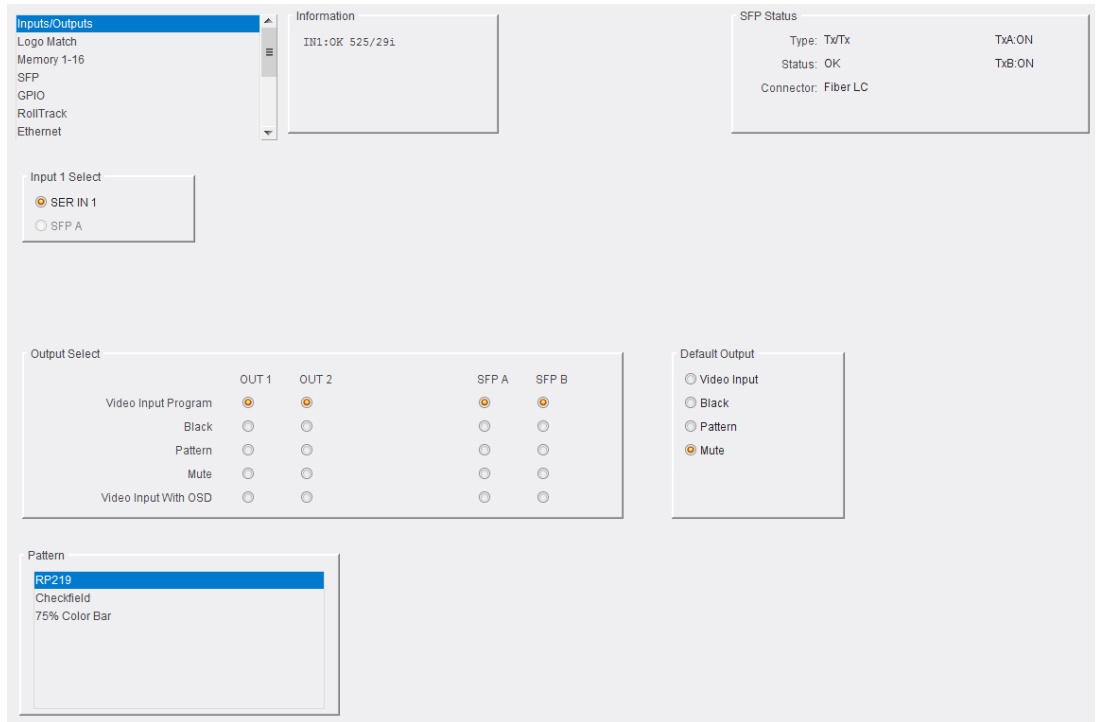


Figure 12 Inputs/Outputs Page

The following facilities are available from this page:

Option	Operation
Input 1 Select	Select from: <ul style="list-style-type: none"> • SER IN 1 • SFP A (if fitted)
Output Select	Use the radio buttons to select the required signal for each output. These can be: <ul style="list-style-type: none"> • Video Input Program • Black • Pattern (selectable) • Muted • Video Input with OSD (select this to display a preview without risk of it appearing on the program output)
Default Output	Sets the default output mode to be used on loss of signal or invalid signal on the selected background input. <ul style="list-style-type: none"> • Video Input • Black • Pattern • Mute

Option	Operation
Pattern	Sets the pattern to be used when Pattern is selected as the output. <ul style="list-style-type: none"><li data-bbox="802 286 938 320">• RP219<li data-bbox="802 331 991 365">• Checkfield<li data-bbox="802 376 1038 409">• 75% Color Bar

5.5 Logo Match

The **Logo Match** page provides controls for selecting the logo signature file and related control and monitoring parameters.

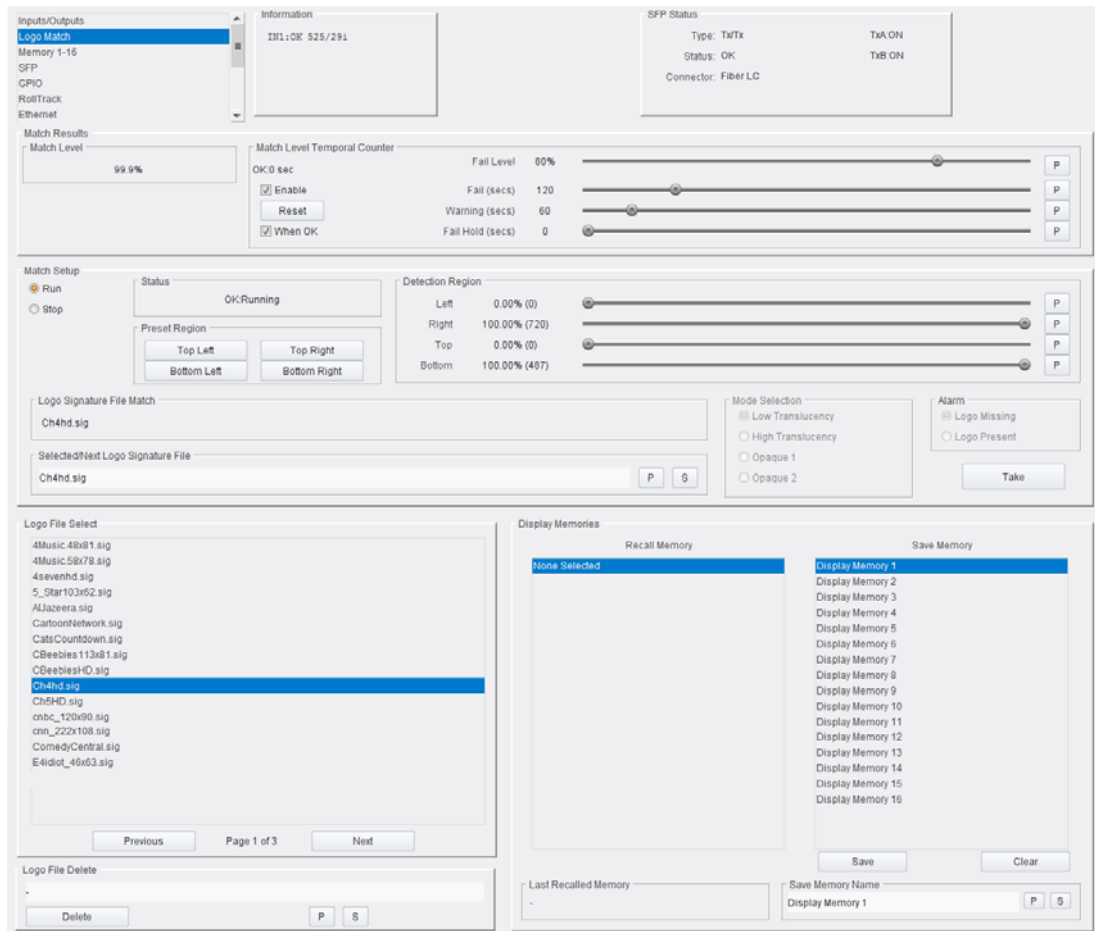


Figure 13 Logo Match Page

The following facilities are available from this page:




Option	Operation
Match Level	Indicates the confidence of a match as a percentage, where 0% is not a match and 100% is a complete match.
Match Level Temporal Counter	Provides controls to set the threshold at which the logo is considered to be a pass or a fail, and the duration that a fail needs to persist to be considered a warning and then a fail. Set the following as required: <ul style="list-style-type: none"> • Enable - For future use. • Reset - Resets the Temporal Counter timers. • When OK - For future use. • Fail Level - The match level percentage at which the Fail condition is to be met.

Option	Operation
Match Setup	<p>Provides controls for the logo detector. Set the following as required:</p> <ul style="list-style-type: none"> • Run/Stop - Activate/deactivate the detector. • Status - Displays detector status. • Preset Region - Divides the screen into four quadrants and sets the detection region accordingly. • Detection Region - Logo processing can be applied to the whole active area, but faster and more reliable detection can be achieved by defining the area that logo detection processing is applied to. This is expressed as a percentage of the active screen area, and is set using sliders that describe the top left and bottom right co-ordinates of the detection area.

Logo Status
Icon

Detection
Region



- **Logo Status Icons** - An icon indicating the current logo status is displayed within the detection region. These are:
 -  **Logo OK**
 -  **Logo Warn**
 -  **Logo Fail**
- **Logo Signature File Match** - The current signature file loaded into memory.
- **Selected/Next Logo Signature File** - The next logo signature file that will be loaded into memory once **Take** is clicked.
- **Mode Selection** - The IQLAM supports detection for opaque, fretted and transparent channel logos and bugs.

Note: **Mode Selection** controls can be used only when **Match Setup** is inactive (see **Run/Stop**, above).

There are four detection modes:

- **Low Translucency** (default) - Mode for handling opaque logos, fretted logos and logos with moderate translucency, up to approximately 35% transparent (provides tight translucency matching trade-off against false positives).

Option	Operation
	<ul style="list-style-type: none"> • High Translucency - Mode for handling opaque logos, fretted logos and logos with higher translucency, greater than 35% transparent (provides more relaxed translucency matching trade-off against false positives). • Opaque 1 - Mode for handling opaque and fretted logos. • Opaque 2 - Mode for handling larger sized opaque logos and news banners. <ul style="list-style-type: none"> • Nominal detection size of query logo = up to 450x150 pixels. • Maximum x,y, scaling with respect to query logo = 130% (optimum reliability at 1:1). • Minimum x,y scaling with respect to query logo = 70% (optimum reliability at 1:1). <p>Unless stated differently, all modes feature:</p> <ul style="list-style-type: none"> • Nominal detection size of query logo = up to 150x100 pixels. • Maximum x,y, scaling with respect to query logo = 200% (optimum reliability at 1:1). • Minimum x,y scaling with respect to query logo = 50% (optimum reliability at 1:1). <p>Note: Animated logos are not explicitly supported, but some animated logos with substantial static components, or with just occasional movement, may be detected successfully.</p> <ul style="list-style-type: none"> • Alarm - Alarms can be set to flag if a logo is either missing or present; see section 5.5 for information on setting detection thresholds. <p>Note: Alarm controls can be used only when Match Setup is inactive (see Run/Stop, above).</p> <ul style="list-style-type: none"> • Logo Missing - Causes an alarm to be logged to LOGO_MATCH_N_STATE = FAIL:Logo Missing if a logo is detected as missing. • Logo Present - Causes an alarm to be logged to LOGO_MATCH_N_STATE = FAIL:Logo Found if a logo is detected as being present. <ul style="list-style-type: none"> • Take - When changing logos, Take must be clicked in order to apply the settings to the logo detector.
Logo File Select	<p>Logo files are uploaded to the module via the RollCall Control Panel, are stored locally on an SD card, and listed in the Logo File Select pane.</p> <p>Select logos as required.</p>
Logo File Delete	<p>To delete a logo file, select it on the Logo File Select pane and click Delete.</p>
Display Memories	<p>16 memories are provided, each allowing a logo detection configuration to be saved. Select a memory to save to from the Save Memory pane, provide a new file name in the Save Memory Name field if required, then click Save.</p>

5.6 Memory 1-16

The **Memory 1-16** page allows up to 16 logo detection configurations to be saved and recalled later. Default memory names can be changed to provide more meaningful descriptions.

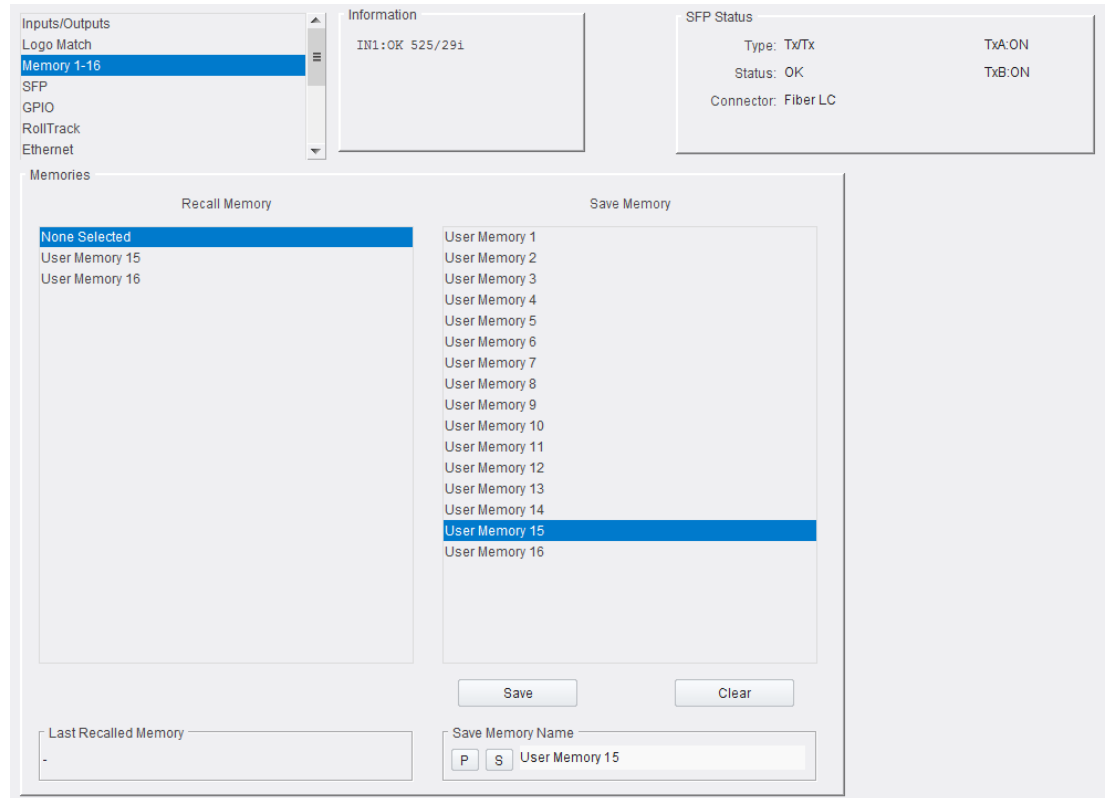


Figure 14 Memory 1-16 Page

The following facilities are available from this page:

Option	Operation
Recall Memory	Saved memories available for recall are displayed here. Select as required.
Save Memory	Shows the memory slots available. To save to a memory: <ul style="list-style-type: none"> Select the memory to save to; the memory is displayed in the Save Memory Name field. Optional: Give the memory a different name by overwriting the default, then clicking S to save the new name. To revert to the default name, click P. Click Save; the settings are saved to the memory, and it is displayed on the Recall Memory list. To remove a memory from the Recall Memory list: <ul style="list-style-type: none"> Select the memory to be removed, and click Clear.
Last Recalled Memory	Displays the memory last recalled.

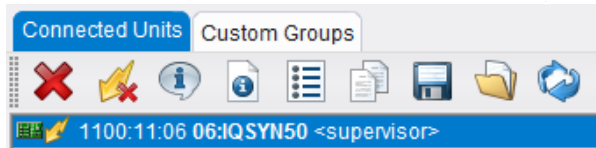
5.6.1 Savesets

Savesets allow the user to save predetermined RollControl product field settings to file, which can then be used to either transfer the settings to another card, or used as a backup of the settings for that card.

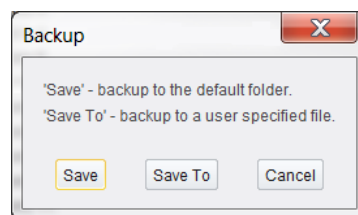
The Saveset feature is available via the RollCall Control Panel client.

5.6.1.1 Saving a Saveset

This is performed from the RollCall Control Panel **Connected Units** pane:




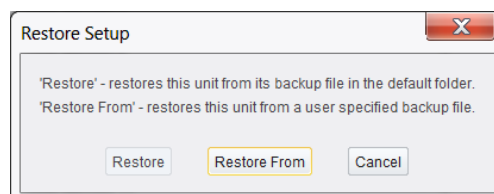
1. Click  to display the **Backup** dialog:



2. Click **Save** to save to the default folder, or **Save To** to save to a specified folder.

5.6.1.2 Restoring a Saveset

1. From the **Connected Units** pane, select the  icon; the **Restore** dialog is displayed:



Click **Restore** to restore from the default folder, or **Restore From** to restore from a specified folder.

5.7 SFP

Details of SFPs recognized by the IQLAM are displayed on this page. If an SFP is fitted but not recognized by the card, the type can be selected manually.

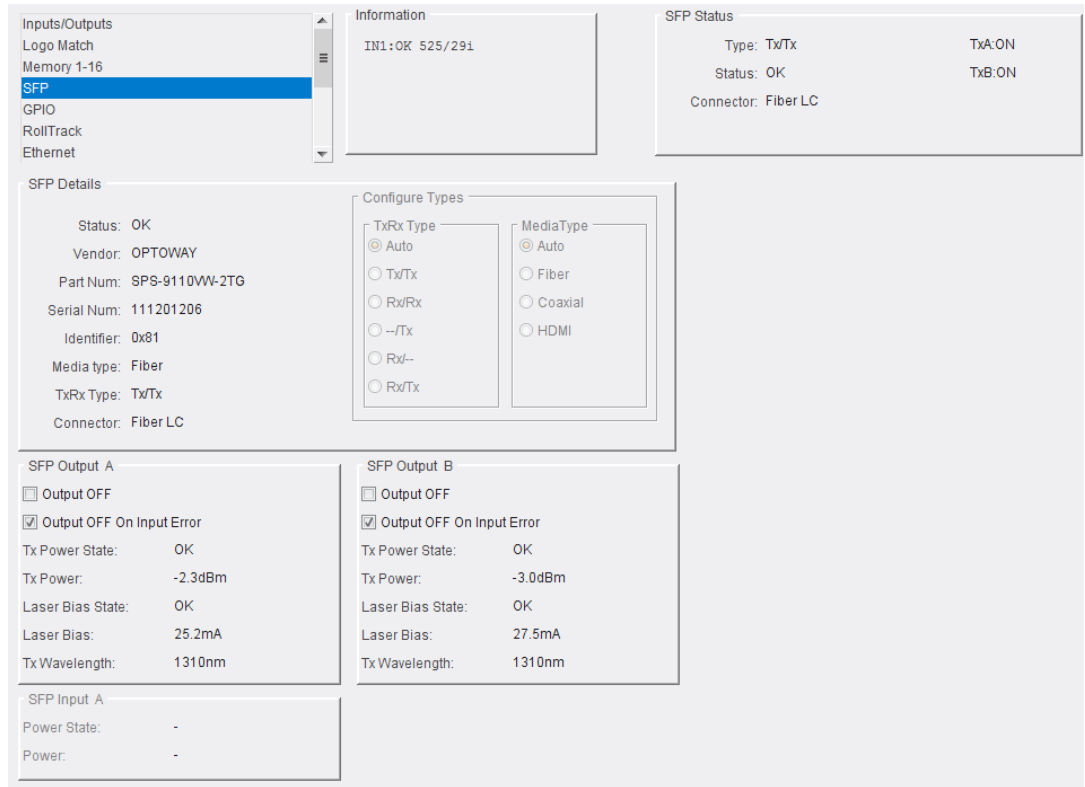


Figure 15 SFP Page

The following options are available:

Option	Operation
SFP Details	Displays details of the SFP.
Configure Types	If the SFP is not detected by the module, use the radio buttons to set the SFP type.
SFP Output A/B	Displays output details for the SFP. The output can be switched off, or set to switch off, if an input error occurs; enable the check boxes as required.
SFP Input	Displays details of SFP input.

5.8 GPIO

The **GPIO** page allows the two on-board GPIO connectors to be configured.

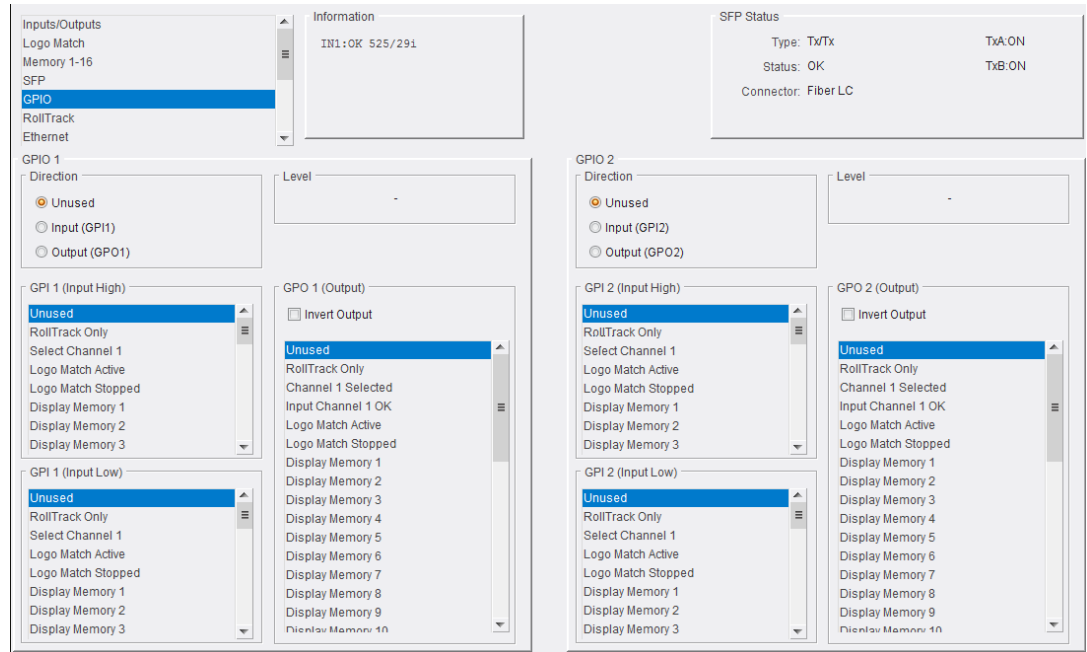


Figure 16 GPIO Page

The following options are available from this page:

Option	Operation
Direction	This control allows GPIO to be configured as an input or an output, or to be disabled. Select as required.
Level	Displays the current GPO level.
GPI 1/2 (Input High)	When configured as an input, each GPIO can be set to perform any of a number of different behaviors when it transitions from low to high. Select from the list as required.
GPI 1/2 (Input Low)	When configured as an input, each GPIO can be set to perform any of a number of different behaviors when it transitions from high to low. Select from the list as required.
GPO 1 (Output)	When configured as an output, the selected event causes the output to be applied.

5.9 RollTrack

The **RollTrack** page allows information to be sent via the RollCall™ network to other compatible units connected on the same network.

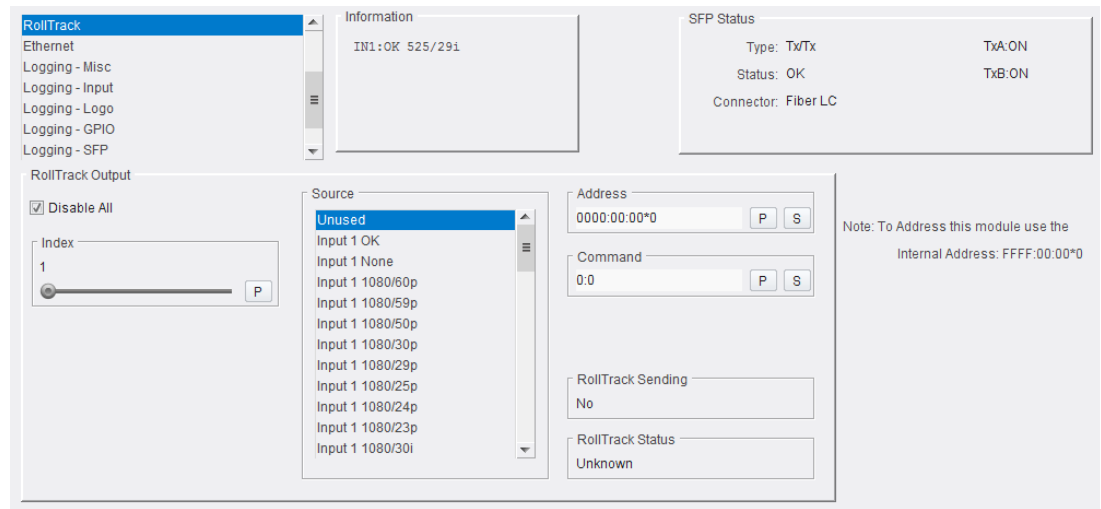


Figure 17 RollTrack Page

The following actions are available from this page:

Option	Operation
Disable All	Click to disable RollTrack functionality.
Index	This slider enables up to 16 RollTrack outputs to be set up. Dragging the slider selects the RollTrack Index number, displayed below the slider. Clicking P selects the default preset value.
Source	Select the source of information to trigger the transmission of data. Clicking P selects the default preset value. When no source is selected, Unused is displayed.
Address	This is where the address of the selected destination unit is set. Type a destination into the text area, then click S to save the selection. Clicking P will return to the default preset destination. A RollTrack address consists of four sets of numbers; for example, 0000:10:01*99 : <ul style="list-style-type: none"> • The first set (0000) is the network segment code number. • The second set (10) is the number identifying the (enclosure/mainframe) unit. • The third set (01) is the slot number in the unit. • The fourth set (99) is a user-definable number that is a unique ID for the destination unit in a multi-unit system. This ensures that only the correct unit will respond to the command. If left at 00, an incorrectly fitted unit may respond inappropriately.

Option	Operation
Command	<p>This enables a command to be sent to the selected destination unit.</p> <p>The command may be changed by typing a code in the text area and then selecting S to save the selection. Clicking P returns to the default preset command.</p> <p>The RollTrack command consists of two sets of numbers, for example: 84:156:</p> <ul style="list-style-type: none"> • The first number (84) is the actual RollTrack command. • The second number (156) is the value sent with the RollTrack command.
RollTrack Sending	<p>A message is displayed here when the unit is actively sending a RollTrack command. Possible messages are:</p> <ul style="list-style-type: none"> • No - The message is not being sent. • Yes - The message is being sent.
RollTrack Status	<p>A message is displayed here to indicate the status of the currently selected RollTrack index. Possible RollTrack Status messages are:</p> <ul style="list-style-type: none"> • OK - RollTrack message sent and received OK. • Unknown - RollTrack message has been sent but it has not yet completed. • Timeout - RollTrack message sent but acknowledgement not received. This could be because the destination unit is not at the location specified. • Bad - RollTrack message has not been correctly acknowledged at the destination unit. This could be because the destination unit is not of the type specified. • Disabled - RollTrack sending is disabled.

5.10 Ethernet

The **Ethernet** page shows detail and status for each network interface. The IQLAM defaults to use of DHCP, but this can be overridden and a static IP address defined if required.

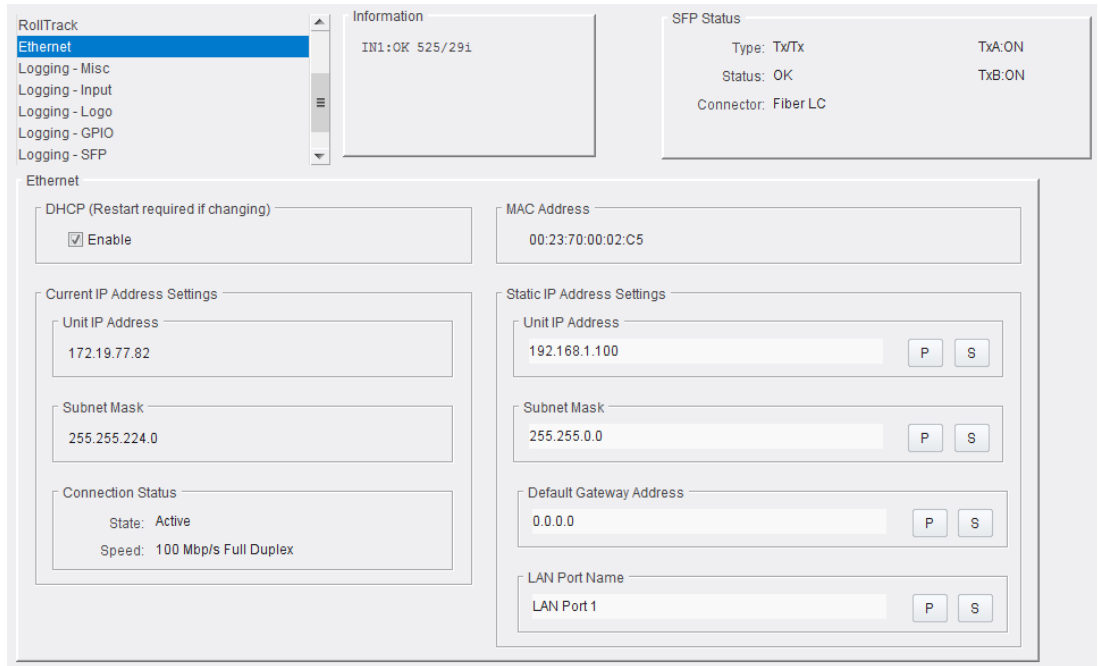


Figure 18 Ethernet Page

5.10.1 The Ethernet Pane

The **Ethernet** pane allows DHCP to be enabled/disabled, displays the current IP settings, and allows static IP details to be defined. Enter information as required, then click **S** to save each field. New settings are applied when **Restart** on the **Setup** page is clicked - see section 5.12.

5.11 Logging

Information about several parameters can be made available to a logging device connected to the RollCall network. Each logging page comprises three columns:

- **Log Enable** - Enable the check box for each parameter to be logged.
- **Log Field** - Displays the name of the logging field.
- **Log Value** - Displays the current log value.

5.11.1 Logging Misc

The **Logging Misc** page allows information on the module’s basic parameters to be logged. Enable check boxes as required.



Figure 19 Logging - Misc Page

Log Field	Description
SN=	Displays the module serial number, which consists of an S followed by eight digits. Note: this cannot be deselected.
OS_VERSION=	Displays the operating system name and version. For example, KOS V115.
BUILD_NUMBER=	Displays the software build number.
HARDWARE_VERSION=	Displays the hardware version number.
HARDWARE_MOD=	Displays the hardware modification level.
FIRMWARE_VERSION=	Displays the ASI controller firmware version.

Log Field	Description
TEMP_1_STATE=	Displays current temperature status. Possible values are: <ul style="list-style-type: none"> • WARN:LOW - Low, but in tolerance • WARN:HIGH - High, but in tolerance • OK • FAIL:LOW - Low and out of tolerance • FAIL:HIGH - High and out of tolerance • WARN:DISABLED
TEMP_1_NAME=	Displays temperature sensor name.
UPTIME=	Displays time elapsed since the last restart, in the format <i>ddd:hh:mm:ss</i> .
ROL_STATES=	Displays RollTrack state. Possible values are: <ul style="list-style-type: none"> • OK • Disabled • FAIL
LAST_RECALLED_MEMORY=	Displays the last memory to be recalled.
REAR_ID=	Displays the rear panel type number.
REAR_STATUS=	Displays the status of the rear panel.
SLOT_WIDTH=	Displays the slot width.
SLOT_START=	Displays the slot start number.
POWER_USAGE=	Displays the power rating for the module. Note this is not a live power reading, but rather a maximum rating.

5.11.2 Logging - Input

The **Logging - Input** page is used to select the logging fields to be enabled for the module inputs. Enable check boxes as required.

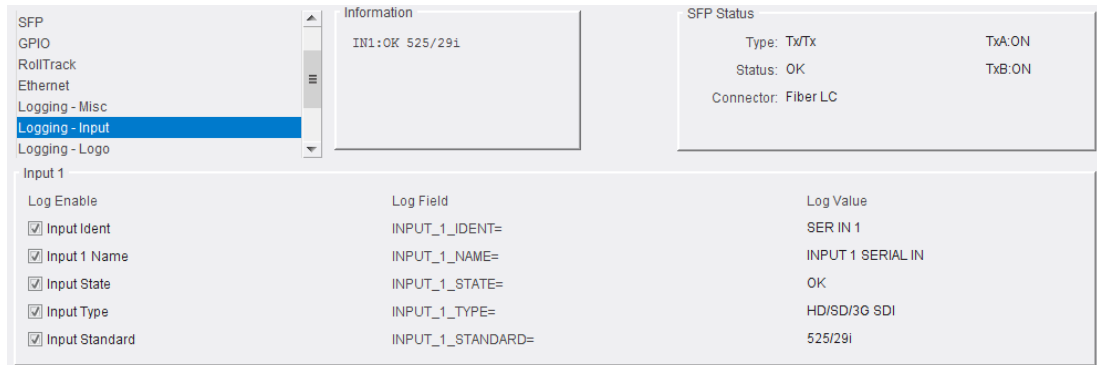


Figure 20 Logging - Input Page

Log Field	Description
INPUT_N_IDENT=	A system-defined identifier for the input, based on the rear ID.
INPUT_N_NAME=	Logs the input name as defined by the user. See section 5.12 for information on naming inputs.
INPUT_N_STATE=	Displays current input status. Possible values are: <ul style="list-style-type: none"> • OK - Input signal good. • FAIL:Lost - Input signal not detected. • WARN:Error - Input does not match reference standard or selected standard.
INPUT_N_TYPE=	Type of input as specified by the module's configuration. Possible values are: <ul style="list-style-type: none"> • 3G/HD/SD SDI • HD/SD SDI • HD/SD Analog • SD Analog
INPUT_N_STANDARD=	Standard as detected by the module.

5.11.3 Logging - Logo

The **Logging - Logo** page is used to select logo parameters to be logged. Enable check boxes as required.

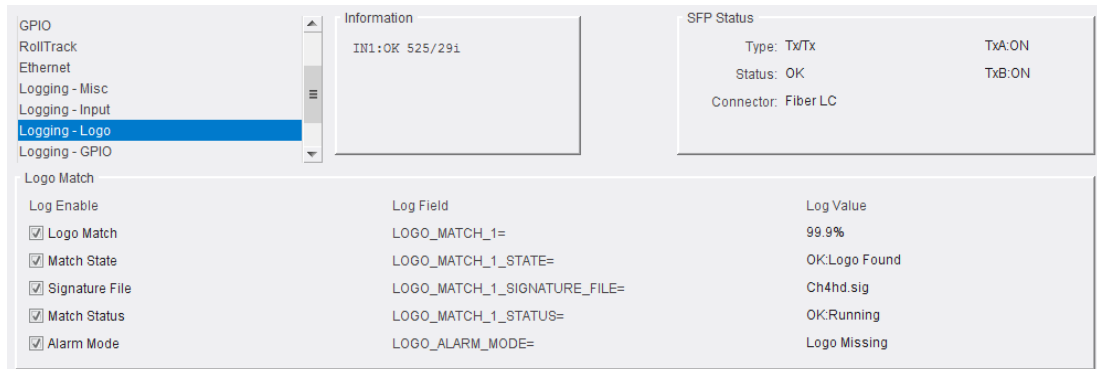


Figure 21 Logging - Logo Page

Log Field	Description
LOGO_MATCH_N=	Confidence of a match, expressed as a percentage.
LOGO_MATCH_N_STATE=	Current logo state: <ul style="list-style-type: none"> OK - Logo found/Logo not found.* FAIL - Logo not found/Logo found.* * Depending on the configuration of the Logo Match functionality. See section 5.5 for more information.
LOGO_MATCH_N_SIGNATURE_FILE=	Signature file name.
LOGO_MATCH_N_STATUS=	Current status of Logo Match functionality: <ul style="list-style-type: none"> OK - Running. WARN - Stopped. WARN - No input. WARN - File not found.
LOGO_ALARM_MODE=	Indicates if an alarm is raised when the logo is: <ul style="list-style-type: none"> Missing but expected to be present, or Present but expected to be absent.

5.11.4 Logging - GPIO

The **Logging - GPIO** page is used to select GPIO parameters to be logged. Enable check boxes as required

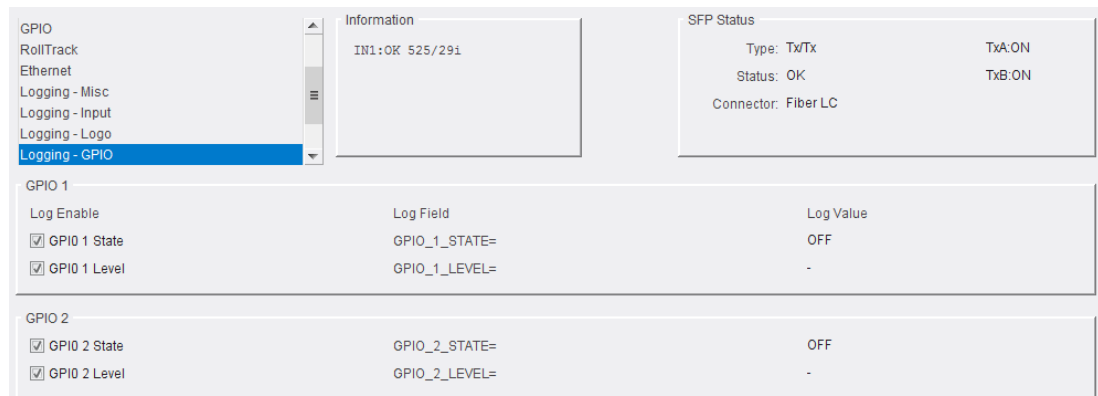


Figure 22 Logging - GPIO Page

Log Field	Description
GPIO_N_STATE=	Current state of GPIO N: <ul style="list-style-type: none"> • OFF • INPUT • OUTPUT
GPIO_N_LEVEL=	Current level of GPIO N: <ul style="list-style-type: none"> • HIGH • LOW

5.11.5 Logging - SFP

The **Logging - SFP** page is used to select SFP parameters to be logged. Enable check boxes as required

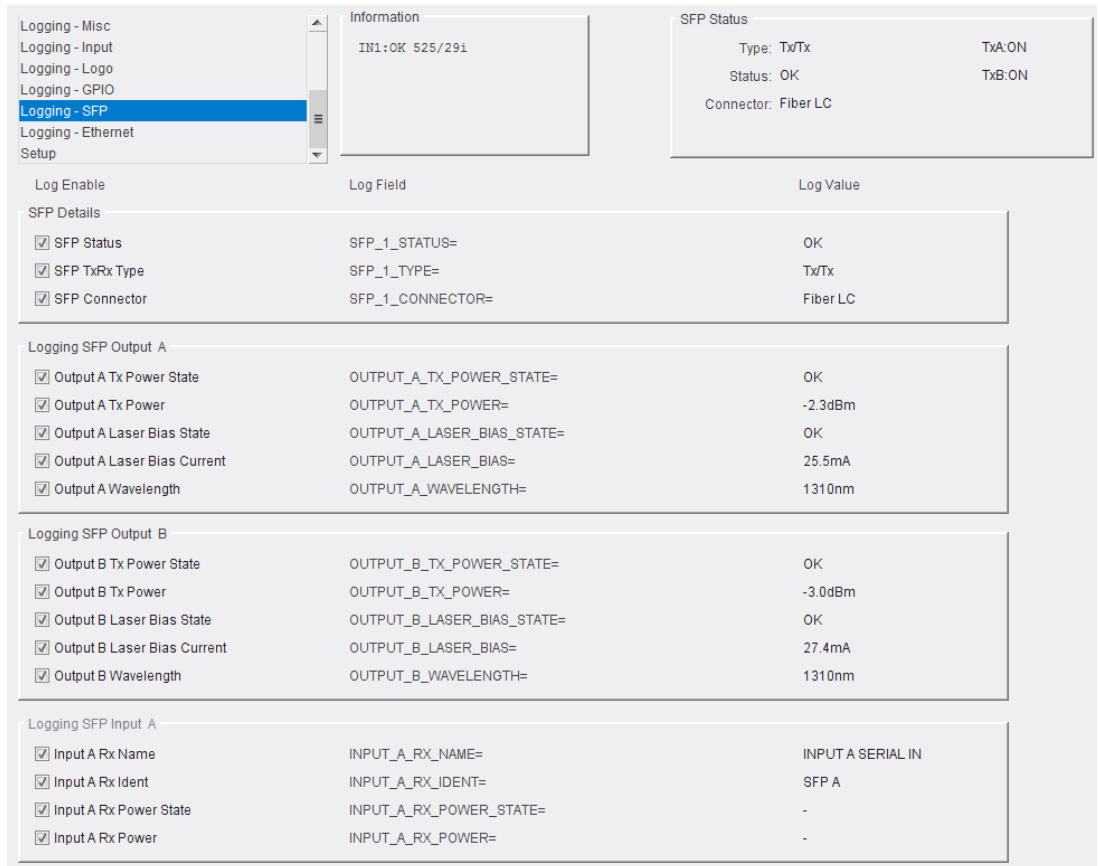


Figure 23 Logging - SFP Page

Log Field	Description
SFP_N_STATUS=	<p>Status of (Q)SFP. Uses the status as reported by SFP(s) and defined by INF-8074 and SFF-8436. Valid values are:</p> <ul style="list-style-type: none"> • OK • FAIL: <Text> • WARN: <Text> • WARN:Temp • WARN:VCC • WARN:TX BIAS • WARN:TX PWR • WARN:RX BIAS • WARN:Laser • WARN:TEC Current • WARN:Temp (QSFP) • WARN:VCC (QSFP) • WARN:RX PWR LO (QSFP) • WARN:RX PWR HI (QSFP) • WARN:TX BIAS LO (QSFP)

Log Field	Description
	<ul style="list-style-type: none"> • WARN:TX PWR LO (QSFP) • FAIL:SFP Not Ready • FAIL:RX LOS • FAIL:TX Fault • FAIL:RX LOL • FAIL:TX LOL • FAIL:SFP Not Ready (QSFP) • FAIL:RX LOS (QSFP) • FAIL:TX LOS (QSFP) • FAIL:TX Fault (QSFP) • FAIL:EQ Fault (QSFP) • FAIL:RX LOL (QSFP) • FAIL:TX LOL (QSFP) • FAIL:Temp (QSFP) • FAIL:VCC (QSFP) • FAIL:RX PWR LO (QSFP) • FAIL:RX PWR HI (QSFP) • FAIL:TX BIAS LO (QSFP) • FAIL:TX BIAS HI (QSFP) • FAIL:TX PWR LO (QSFP) • FAIL:TX PWR HI (QSFP)
SFP_N_TYPE=	(Q)SFP identifier from device.
SFP_N_CONNECTOR=	Connector type. See SFF-8024 Table 4.3.
OUTPUT_Y_TX_POWER_STATE=	Status of transmit power compared to threshold values. Valid values are: <ul style="list-style-type: none"> • OK • WARN:LOW • FAIL:LOW • WARN:HIGH • FAIL:HIGH
OUTPUT_Y_TX_POWER=	Actual transmit power.
OUTPUT_Y_LASER_BIAS_STATE=	Status of laser bias compared to threshold values. Valid values are: <ul style="list-style-type: none"> • OK • WARN:LOW • FAIL:LOW • WARN:HIGH • FAIL:HIGH
OUTPUT_Y_LASER_BIAS=	Actual laser bias.

Log Field	Description
OUTPUT_Y_WAVELENGTH=	Laser wavelength reported by SFP.
INPUT_A_RX_NAME=	User-defined input name.
INPUT_A_RX_IDENT=	SFP identity, fixed to SFP A .
INPUT_A_RX_POWER_STATE=	Status of received power compared to threshold values. Valid values are: <ul style="list-style-type: none">• OK• WARN:LOW• FAIL:LOW• WARN:HIGH• FAIL:HIGH
INPUT_A_RX_POWER=	Actual received power.

5.11.6 Logging - Ethernet

The **Logging - Ethernet** page is used to select Ethernet parameters to be logged. Enable check boxes as required

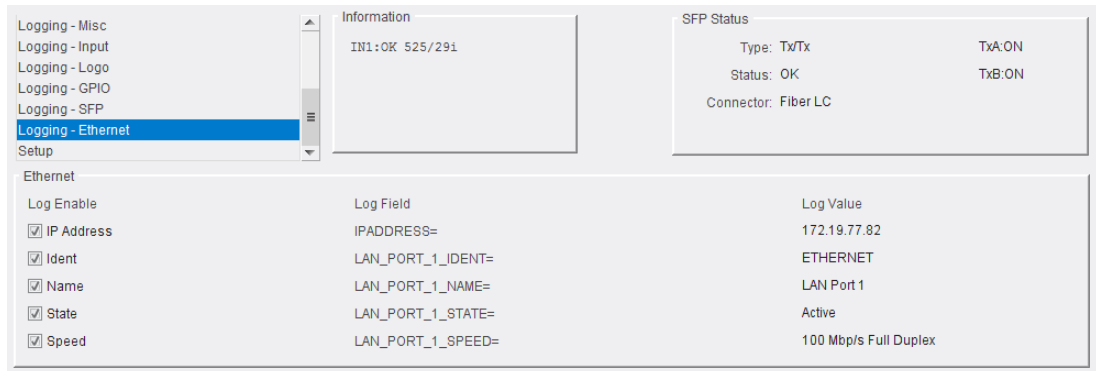
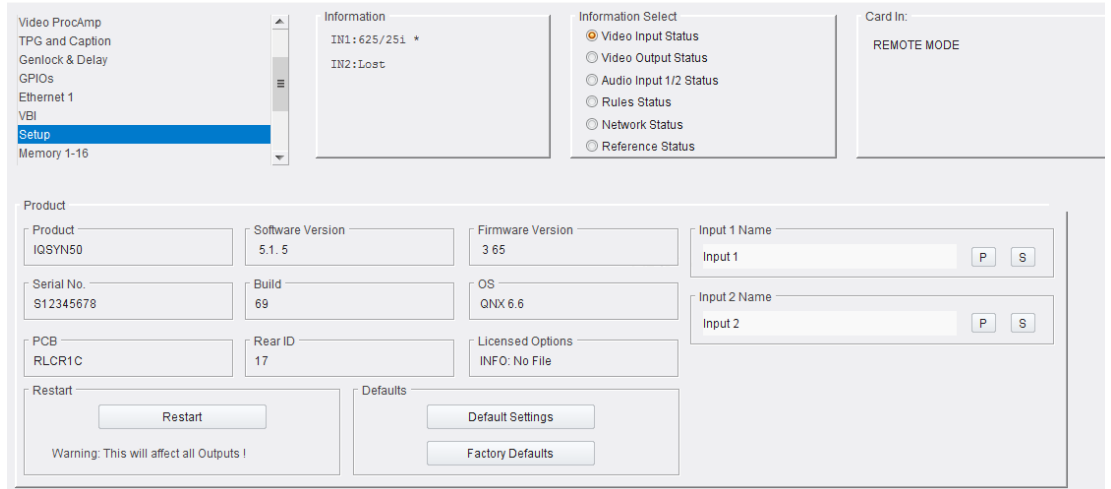


Figure 24 Logging - Ethernet Page

Log Field	Description
IPADDRESS=	Displays the module IP address. Possible values are: <ul style="list-style-type: none"> • WARN:None • WARN:Invalid Address • <IP Address>
LAN_PORT_N_IDENT=	<ul style="list-style-type: none"> • ETHERNET
LAN_PORT_N_NAME=	Displays Ethernet port name as defined on the Ethernet page. See section 5.10 for more information.
LAN_PORT_N_STATE=	Displays Ethernet connection status. Possible values are: <ul style="list-style-type: none"> • Active • WARN:Inactive
LAN_PORT_N_SPEED=	Displays Ethernet connection speed. Possible values are: <ul style="list-style-type: none"> • 10 Mbit/s Full Duplex • 10 Mbit/s Half Duplex • 100 Mbit/s Full Duplex • 100 Mbit/s Half Duplex • 1 Gbit/s Full Duplex • No Link

5.12 Setup

The **Setup** page displays basic details of the module. You may be asked for these if you contact SAM technical support. Input names can also be defined, and options to restart and reset to defaults are also provided here.



5.12.1 Restart

Click to power-cycle the module.

5.12.2 Defaults

The module can be to be reset to default settings. Use as required.

Option	Operation
Default Settings	All controls are reset to their default values, except for network configuration and IP addresses.
Factory Defaults	All controls are reset to their default values, including network configuration and IP addresses.